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# MAN

A MONTHLY RECORD OF ANTHROPOLOGICAL SCIENCE.

PUBLISHED UNDER THE DIRECTION OF THE

ROYAL ANTHROPOLOGICAL INSTITUTE

OF

GREAT BRITAIN AND IRELAND.

XXVII

1927

Nos. 1-167

WITH PLATES A-M

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A CRYSTAL MASK FROM TIBET.

# MAN

A MONTHLY RECORD OF ANTHROPOLOGICAL SCIENCE,

PUBLISHED UNDER THE DIRECTION OF THE  
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## ORIGINAL ARTICLES.

With Plate A.

Tibet: Technology.

Beasley.

**A Crystal Mask from Tibet.** By H. C. Beasley.

As objects from Tibet have hardly received the attention that is due to them it may be of interest to describe briefly the subject of Pl. A, which represents the mask of the goddess Palden Lhamo, one of the Eight Terribles. The body of the mask is worked from a lump of rock crystal, a substance which is valued in Tibet, and occasionally occurs in other ritualistic objects. The features are strongly marked, being applied in gilt bronze; the teeth are probably human, whilst the eyes are of ivory. The story I had with the mask was that it was used to attract malignant demons, who were summarily dealt with by the officiating lama. Palden Lhamo, from having a third eye in her forehead, is readily recognised. She reappears in Hindu mythology as Kali, and in Japan is known as a goblin under the name of Mitsume, being illustrated in Hokusai's "Mangwa" under the name of Mitsume-Kozo. In China there are various deities that have the third eye, notably Ma-yüan-shuai, the goddess of Thunder, also Lü-yüen, god of disease, recognisable by his long teeth, who is probably derived from Palden Lhamo. Palden Lhamo was believed by the Tibetans to have been reincarnated in the late Queen Victoria, and as one of the Eight Terribles, arrayed in her full regalia, she lacks nothing of the horrible, and, outwardly at least, lives up to her reputation. Usually she is seated on a chestnut mule, the offspring of a red ass and a winged mare, the gift of the goddess of the sea. The Srinpo, or ogress, presented her with a string of skulls, which she holds in her left hand, and the goblins that haunt graveyards gave her corpses, on which she feeds, whilst Kyadorje gave her dice, with which to play for human lives; in her left hand she holds a club, the gift of Chyagna-dorje. Her scanty garment consists of a girdle made from the skin of a recently flayed man, whilst her mule, whose girth and crupper are living snakes, tramples under foot the mangled remains of human bodies. Further, she is often shown drinking blood from a human skull.

H. C. BEASLEY.

*Works consulted:—Landon, "Lhasa." Joly, "Legend in Japanese Art." Waddell, "Lhasa." Das, "Journey to Lhasa." Werner, "Myths and Legends of China."*

## Racial Contact.

Pitt-Rivers.

**The Effect on Native Races of Contact with European Civilisation.** *A paper read at a meeting of the Royal Anthropological Institute, December 14, 1926. By Captain G. Pitt-Rivers.*

2

1. *The Native Problem.*—Under the vague and somewhat ambiguous title "Native Problem" are grouped all the problems and difficulties that have arisen in every part of the world where European Christendom has taken over the control of the destinies of backward and dark-skinned races. The term itself, and the constant references that are made to it in connection with the almost ubiquitously existing state of unrest among subject races under European tutelage, implies that the "problem" is unsolved. Western civilisation has assumed control of subject races but has as yet failed to stabilise the relation between subject and ruling race and between two incompatible cultures. But the problem, so long as it remains a problem, has two sides to it. There is the problem of realising the white man's interests in a black man's country—that is the former's aspect of the problem; and there is the black man's problem—the problem of maintaining his own existence, identity and welfare. Neither side should be considered without the other, for they are both part of the same problem. In practice this is far less often remembered than might be supposed.

The problem exists throughout the world. We are asked to consider the Native Problem in South Africa, every day growing more insistent. In America the problem of the negro becomes ever more acute; only owing to his fast dwindling numbers the Red Indian and the Eskimo are less anxiously regarded. In India and Egypt we face tumults and agitations for self-government; in the surging aspirations of Pan-Islamism we faintly recognise a challenge to the white race and a rejection of his culture. In China the challenge is distinct and menacing. Even in New Guinea, where the problem is newest but not less urgent and the natives still inarticulate, we are constantly reminded of the growing difficulty of securing native labour for the plantations, and of their growing insubordination or disinclination either to work themselves or to breed workers for the white man.

2. *The Relation of Race to "Culture."*—The relation of culture to race has long been a problem that has exercised the minds of anthropologists. Like most debated problems the answers all depend upon the way the question is framed and the terminology used in framing it.

The problem is but an aspect of the problem of all organic life: it is the problem of adaptation; and adaptation, we have been perhaps rather late in recognising that fact, involves mental and cultural no less than physical factors.

If, then, I may restate the problem in terms which I think most clearly define it, it may be summed up by saying that the culture level of a people at a particular time is conditioned by three factors: by their heritage of *culture-forms* (traditions, art-forms, beliefs, customs, and social organisation), together with *culture-accessories* (implements, weapons and mechanical discoveries), and by their *culture-potential* (a term here applied to innate constructive ability; power of expression; the capacity to develop, under suitable conditions, artistic, scientific or technical skill; and temperamental disposition). Culture-forms and culture accessories are not simply bequeathed to a people and in turn handed on by them intact, but are evolved and modified by successive generations; while at every stage culture is conditioned by the capacity of people to give expression to it.

We have to face the problem of racial capacity to become adapted to changed environmental conditions. An examination of population tendencies in the Pacific regions and in America appears to show that people are far less adaptable to great and sudden changes in culture-form than is generally supposed. The more specialised a people become through segregation and the agency of selection, the more closely adapted are they to the culture-forms they have evolved. Any

drastic change in mode of living and in culture-form imposed upon them from outside and not evolved or modified by themselves leaves them, for this reason, ill-adapted to the innovation. It is a psycho-physical problem, the physical consequences of which are illustrated in the phenomenon of the gradual extinction of unadapted peoples. This conclusion is supported by an analysis of the demography of peoples all over the Pacific and in America, where a biological substitution of population is taking place. Apart from a systematic analysis, however, the facts are apt to be obscured by the gradual infiltration of foreign blood into a declining population, and the frequent inability to discriminate between the unadaptable and unmixed stock that is declining and the new miscegenated stock which is capable of surviving under the changed conditions.\*

Briefly summarised the effects of the contact of two dissimilar, but interacting culture-trends, can be grouped under the following classes :—

(1) Immigrant and more powerful culture-bearers may so revolutionise the environmental conditions of the native and culturally weaker people that, incapable of readaptation, they become eliminated and die out—examples : Tasmanians, and some Australian, Polynesian and Melanesian tribes; or

(2) The elimination of the people of a weaker culture may be disguised by a blood-dilution which gradually changes the ethnos or ethnic continuity of the population, substituting miscegenated stocks, more adaptable to the changed cultural conditions, which gradually take the place of a former population—instance, the Maoris of New Zealand.

(3) A people forcibly removed from their own cultural environment and transplanted into another, where they are preserved and bred, may become adapted to new cultural conditions, with a minimum of change in ethnic continuity. Example, the Negro population of the United States during the period of slavery.

(4) Gradual culture assimilation and amalgamation of aboriginal people by immigrant people. Example, the Polynesian assimilation of Melanesian or Australoid peoples.

(5) The relative segregation of small cultural pockets maintaining themselves within the sphere of influence of a stronger culture. We might perhaps cite some of the Lolo communities near the Tibeto-Burmese border in Southern China.

(6) Strong immigrant culture-bearers may meet with strong and persistent opposition on the part of natives who may resist cultural contamination with great determination. I think particularly of the Balinese peaceful, but stubborn, rejection of all European cultural influences, or of the traditional Chinese intolerance of European proselytism, provoking, however, a more emphatic demonstration.

(7) Immigrant culture-bearers may succeed in extinguishing an aboriginal culture, but yet fail either to extinguish or to assimilate its bearers, who appear to survive the condition of cultural disequilibrium. May we here not cite some African examples, among, for instance, Basuto or Bantu tribes; and finally—

(8) We may be reminded that the indigenous elements may eventually absorb the immigrants and assimilate them with or without taking over much of the culture of the latter. Here, for instance, we may think of the assimilative tendencies of the Chinese, who appear to have assimilated even the Chinese Jews who in physical features, language, dress, habit and customs, in fact in everything except their religion, appear Chinese.

3. *Overpopulation and Depopulation.*—In every instance where one culture strongly influences another, a condition of culture disequilibrium is engendered,

\* A demographic analysis supporting this thesis was embodied by the writer in a paper entitled "Variations in Sex Ratios as Indices of Racial Decline," and read before the Anthropology Section of the Pan-Pacific Science Congress held in Melbourne, August, 1923. See *Proceedings*, pp. 273-281.

followed by the extinction or modification of the weaker culture and a variable degree of re-adaptation accompanied by a greater or lesser change in *ethnos*.

When two races meet there are three ways by which one may extinguish another. Directly, by violence; by gradual substitution through differential birth and survival rates; and, thirdly, when they mix freely by selective elimination of less adaptable characters. We often confuse the decline of a race and the decline of a population. The infiltration of alien stock may check the decline of population, while, at the same time, the racial elements continue to decline.

But the cultural clash resulting from one racial group dominating another does not always initiate a state of depopulation—it may promote the opposite. India provides an instance. Here the opposite of depopulation is occurring. Whether it amounts to overpopulation or not does not much matter for our present purpose. It is interesting, however, to note that Professor Carr-Saunders not only believes that overpopulation occurs in many parts of India, but assigns as responsible for it very similar causes to those which are also responsible in different circumstances for the opposite tendency—for the depopulation of subject races.\*

It appears, then, that under certain circumstances when a people fall under the domination of an alien race, which seeks to impose upon it incompatible culture-forms, overpopulation, or at any rate a rapid increase of population, is likely to occur, partly as the result of the break-down of native customs, which formerly regulated numbers, and partly by inducing a feeling of general discontent or of apathy or by fostering a condition of social disorganisation resulting from interference with, or modification of, native cultural elements. But, as we shall have further reasons for believing, it is also in the break-down of native customs and the suppression of the native culture by the attempted imposition of incompatible culture-forms that we find the principal causes of the depopulation and gradual extinction of many of the races subjected to European government. At first sight it may not appear consistent to attribute exactly opposite results, both depopulation and overpopulation, to the same group of primary causes.

We may, however, provisionally distinguish the group of circumstances in which the "culture-clash" fosters increasing population or overpopulation and the group in which it tends to bring about depopulation or a decline of population. Perhaps the most conspicuous difference between the culture-clash in India and Indonesia with their teeming populations and the culture-clash in the depopulated islands of Oceania, or as applied to the aborigines of Australia and Tasmania, lies in the capacity shown by the Hindu and Moslem cultures of the former group to resist the European proselytism which they despise, and to preserve almost intact their traditional cultural values, however drastically their economic and political evolution may have suffered modification, whilst the barbarian cultures of Oceania and Australasia, conscious of their cultural and intellectual inferiority, have been powerless to preserve the essential elements of their cultures against proselytism.

In India native unrest became serious only in recent years. There is no question, here, of the eradication of native culture; native culture is highly evolved, complex, and resistant, and the tiny population of white colonists is quite incapable of imposing its culture upon the intellectual classes and leaders of thought, either

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\* Prof. Carr-Saunders, "The Depopulation Problem," pp. 276-7.

Professor East also arrives at the conclusion that India is overpopulated, and has reached a point where it is impossible for her to increase rapidly by an excess of births over deaths. He points out that "conditions must be pretty bad where an annual birth-rate ranging from 40 to 55 per 1,000 of the population is so nearly equalled by the death-rate that the annual increase is only a shade over 1.0 per thousand." The population of India has increased from 178 millions in 1851 to 315 millions in 1921, but during the last decade the increase was less than four millions, or 1.2 per cent.

Hindu or Moslem, who are the guardians of the culture-forms of the different races in the country; neither is it able by its influence so to modify the social organisation or so to revolutionise the living conditions of the people that they are in danger of losing all interest in life and dying out, like the less highly cultured and more defenceless Polynesians and Melanesians of the Pacific. Nevertheless, the influence of European rule upon native life is considerable, but in place of tending to exterminate it has had the result of greatly enhancing the pressure of population, and at the same time fostering a growing spirit of discontent. Sir George Birdwood points out that sheer pressure of population aggravated by the reduction, under our benevolent rule, of the virulence of endemic plague and of the frequency of famines, and of such checks to overpopulation as abortion and infanticide, has contributed to the underlying physiological causes of manifold discontents.\* More important, however, and less subject to dispute, are the psychological factors which now produce the growing discontent of Indian peoples with the condition of European rule.†

The attempts at Europeanisation, to the extent in which they have met a successful resistance, have, as an inevitable consequence, produced, and been the measure of, the "unrest" that distinguishes the native problem in those countries; whilst the impotence of the more lowly and barbarian cultures to make an effective resistance has left the natives ill-equipped, and without the will, to survive the destruction of all the values that gave meaning and zest to their lives. The same forces that have in the first instance only succeeded in modifying and hampering the normal expression of native culture-forms at the cost of social disintegration, have in the other, led to the extirpation of native culture forms, with the consequence that the natives have failed altogether to adapt themselves. The evidence for the correctness of this explanation must be left over until detailed illustrations are given. Another factor that has aided the subject races of higher culture in their resistance to all attempts at Europeanisation has been their overwhelming numbers in proportion to their European invaders, who have failed to colonise and increase rapidly in a climate to which they are not innately adapted.

4. *Causes of Depopulation.*—This explanation, it is true, does not apply to every country where the clash of culture occurs between ruling and subjugated races. For instance, the Bantu is a lowly and barbarian culture, ill-equipped to resist Europeanism, while the climate of South Africa in this instance is suitable for European colonisation, yet the Bantu races are not dying out. Again, the negro is far from dying out in North America, although the North American Indian is left behind in the race by both black man and white.

According to the view that I am now presenting, these contrasts in the effects of the culture-clash all depend upon the adjustment of widely-differing external and internal factors. Such factors are:—

(1) Variations in the relative power of the dominant culture in influencing the normal living conditions to which the natives are adapted. This factor varies according to the extent of effective interference and control exercised.

(2) Variations in innate amenability or adaptability of the subjugated races. This factor is equally as variable as psychological types. The grounds for supposing that distinct fundamental differences in psychological type exist will need separate discussion.

(3) Modification and transformation of innate qualities of subject races by the infiltration of alien blood. The influence of race-mixture must be left over for a separate investigation.

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\* "Sva," by Sir George Birdwood, p. 29.

† These again may be included that most invariable category, the resentment that arises from attempts to impose incompatible culture-forms.

Human fecundity, or the capacity for natural increase, is normally so much greater than the greatest possible fertility compatible with the available means of subsistence that in all populations—except those that are dying out—any increase in the factors of elimination tend to be compensated by an increased fertility, which is still far below the rate that fecundity makes possible.

It is too often assumed that the decline and disappearance of a population is wholly due to the operation of new or of old factors of elimination. When a decline is observed, any new factors, or any factors that have been and are still operating as checks to population, are immediately cited as sufficient cause to account for the decline, without pausing to consider why fertility—always so far behind fecundity—can no longer keep level with the factors of elimination. When, as sometimes happens, a population declines, and at the same time many of the old factors of elimination are removed, as when the Maori population was observed to be declining during the last three decades of the nineteenth century, although warfare had ceased to be a factor of elimination and food was more abundant than ever before, the most contradictory and diverse causes are often arbitrarily cited by baffled investigators to account for a phenomenon they cannot explain.

Although it is well known that a high mortality rate is the normal accompaniment of a high birth-rate, and a low death-rate the normal accompaniment of a low birth-rate, exclusive importance is often attached to the factors and the rate of elimination while ignoring the relation of one to the other, as well as neglecting to discover the underlying root causes determining the adaptability or inadaptability of a population to changes and influences, both physical and psychological, in their environment; and forgetting that the factors of elimination, whether many or few, are the agents whereby the fundamental tendency in adaptation is able to express itself. Where there is adaptation the elimination rate meets requirements by maintaining the population at its "optimum density," where there is failure in adaptation elimination may exceed, and fertility fail to meet, requirements, and a progressive decline will be witnessed.

The remedies proposed at different times to alleviate or cure the decrease or degeneracy of the people may similarly be classified according to whichever view is taken of the causes of decrease. If the effective causes are primarily due to conscious or unconscious influence or interference on the part of Europeans, the remedies must logically lie in removing those influences or in counteracting them; if, however, they are inherent in the native life and system, a remedy may then be found in bringing a still greater influence and a more effective interference to bear on the natives.

A survey of the important Reports and of the recognised literature on the subject shows a curiously persistent tendency to lay the weight of responsibility for the decline on elements inherent in the native culture. Thus Sir Hubert Murray, Lieutenant-Governor of Papua, in his "Review of the Australian Administration in Papua from 1907 to 1920," after expressing the opinion that the original tendency to diminution had spent its force so far as the territory under his administration as a whole was concerned, speaks of "other tribes," mentioning as examples the people between the Fly and Pahoturi, "who, apparently, must disappear before long, and when one considers their habits, the only cause of surprise is that they should ever have come into existence at all." Definite mention is made only of child-marriages, and "the probability of unnatural offences, and other filthy customs." He then continues: "People of this kind must die out in any case, whether white men come or not, and their existence shows how the problem is complicated by the absolute lack of evidence whether the population was increasing or decreasing before we came to Papua. It is difficult to imagine that people with such habits as those mentioned should ever increase."

Were it not for the prevalence of this sentimental and unscientific view, which is likely to remain attractive if for no other reason than because it seeks to exculpate European civilisation from a charge of exerting a lethal influence, it might be unnecessary to labour the point that there is no necessity for people who practise child marriages, even coupled with "the probability of unnatural offences and "other filthy customs," to die out in any case; and whether it be difficult or not to "imagine that people with such habits should ever increase," it remains a fact that child-marriage, together with innumerable habits strongly distasteful to European sentiments, have prevailed among people over a very wide region, including India, who have yet shown remarkable powers of increasing.

5. *Race-mixture*.—Finally, we must recognise the influence of race-mixture upon both physical and psychological adaptability. The gradual infiltration of European blood into a declining native population must favour a readaptation of the increasingly miscegenated stock. Thus we often witness the stabilisation and subsequent increase in a population formerly declining, while at the same time the strictly racial elements continue to decline. I have chosen the Maori people as a convenient illustration of this process.

To sum the matter up, we may say that the true approach to solving the problem of depopulation lies in elucidating the problems of miscegenation in relation to variations in adaptability.

6. *Sex Ratio variations*.—I now come to a subject to which I particularly invite your attention, for the help I think it may provide us in correctly diagnosing population tendencies. I refer to "Sex Ratio variations."\* I have already called attention to the significance of the observable fact that "throughout the Melanesian "and Polynesian regions, where the depopulation tendency is marked, the males "are largely in excess."

In the first place, we observe that, throughout the Melanesian and Polynesian regions, where the depopulation tendency is marked, the males are largely in excess of the females. A large deficit of females is noticeable in New Guinea, the Islands of the Bismarck Archipelago, and among the disappearing Australian blacks. This phenomenon is observed among the Maoris, the Fijians, and many other Polynesian and Melanesian groups; it is, in fact, most conspicuous where the population declines most rapidly. The significance of this excessive masculinity has generally been ignored by reason of a widely-held belief that it was no recent phenomenon, but was always a characteristic of these races. Thus, in the "Report on the Decrease of the Native Population" (Fiji, 1896), the Commissioners state: "As it is certain "that the females did not exceed the males, and in view of the custom of female "infanticide, more than likely that the males were then, as now, in excess, it "stands to reason that, if polygamy was practised at all generally, a large number "of males would have had to go without wives altogether."† It can be shown, however, that there is nothing less probable than that a surplusage of adult males always existed. Its improbability is not shown merely by quoting contrary authorities in support, though these are not wanting. For instance, referring to the New Hebrides, Banks Islands, and Tikopia, in particular, and Melanesia generally, Rivers‡ quotes Dillon§ and Gaimard,|| who both stated that women were formerly more numerous than men, "Dillon going so far as to estimate the number "of women as treble that of the men . . . as elsewhere the evidence concerning

\* See footnote \* ante, p. 3.

† *Op. cit.*, p. 11.

‡ "Melanesian Society," i., pp. 351, 352, 309, 196, 48.

§ "Narrative of Voyage in the South Seas to ascertain the Fate of La Pérouse's Expedition," ii., p. 134.

|| Gaimard, "Voyage autour du Monde et à la Recherche de la Pérouse," Tome V, pp. 10e.

"polygamy indicates a change in the proportion of the sexes." Indeed, numerous instances could be given of the abandonment of polygyny owing to changes in the proportion of the sexes, and a recent growing deficit of women.\* This fact is even referred to in the "Report on the Fijian Decrease," where "the growing disproportion of the sexes owing to the increasing female mortality . . ." is cited by correspondents (p. 68). The principal indication that the deficit of women is a recent phenomenon and concomitant with a decline in the total population lies, however, in the fact that, where vital statistics are available, they show that masculinity is progressive when the decline is progressive, and that when the population shows a tendency to rise, it accompanies a tendency for the masculinity of the population to diminish.

In Australia we have available but two censuses of the aboriginal natives, those of 1911 and 1921. New South Wales and Victoria were the only two States in which the whole full-blood aboriginal population (who were living in a civilised or semi-civilised condition) were enumerated. During the decade the native populations in the two States declined from 2,012 to 1,501, and from 196 to 111, respectively; while the masculinity (excess of males over females per 100 of both sexes combined) increased from 14.51 to 17.12 and from 5.10 to 11.71. There has been little infusion of white blood in the Australian aboriginal populations, owing principally, it is supposed, to the general disinclination of the natives to rear half-caste children. The race is, therefore, fast disappearing where it is brought into close contact with the white population. A contrary tendency is now exhibited by the native population of American Samoa, which increased from 5,679 in 1900 to 8,056 in 1920. Here the Polynesian stock is largely adulterated with white blood, the actual extent of which it is impossible to determine, though mixed bloods having one white parent, usually a father, constitute about 3 per cent. of the population. Here masculinity has steadily diminished in recent years, and, in 1920, females in the 20 to 34 years of age category, exceeded the males of the same ages.

What we know of the nineteenth century decline and twentieth century rise of the Maori population appears to exemplify the same correlations between masculinity and decrease.

Possibly more adequate corroboration of these correlations may be obtained from a study of the demography of the Red Indian and negro populations of the United States of America. Among the Red Indians generally we find a high masculinity, except in groups which are increasing, which show a lower masculinity. The elements that are increasing are mainly the mixed bloods; an exception is the Navaho tribe of Arizona, which alone of the pure-blooded tribes is increasing considerably, and which alone of the pure-blooded tribes shows an excess of adult females (between the ages 20-50).

The masculinity of the black races compared show conspicuous contrasts. In the negro population of the United States males exceeded females from 1820 to 1840, while from 1840 onwards females exceeded males. In 1910 there were 4,885,881 males to 4,941,882 females—a ratio of 989 males to 1,000 females. We may observe, too, that the ratio of females to males is higher for the enumerated mulattoes than those classified blacks. (In 1910 there were, out of a total mulatto population of 2,050,686, 963,549 males to 1,087,137 females.) During the period 1850-1910 the negro population increased rapidly, concomitantly with the greater infusion of white blood. The increase in the mulatto population during this period is but an inadequate indication of the infusion—the proportion of mulatto to classified black increased from 11.2 per cent. in 1850 to 20.9 per cent.

\* Cf. also Rivers, *ibid.* ii, pp. 18, 128.

in 1910. The stationary and, in some districts, the declining Red Indian population shows generally a high masculinity—in 1910 there were 135,133 Indian males to 130,550 females.

The diverse influences of polygynous and polyandrous matings can be illustrated only when polygynous and polyandrous groups are living under the same conditions and when statistics are available. In populations where the sex ratio and the mating system vary between groups, the polygynous matings appear to show a higher fertility and survival rate than the monogamous matings.

As the result of demographic analysis I am led to the following principal formulations and summary of conclusions:—

1. Disturbances in sex ratio of reproductive adults are correlated to the potential of an increase or decline in the population.

2. Progressive surplusage of males is an index of decline.

3. A stabilised or increasing population exhibits a tendency to reproduce a surplus of adult females of reproductive age over adult males.

4. There exists a general and universal tendency (common to all polygynous species, including men) for polygynous communities to replace polyandrous communities, which tend to die out. Since very few (if any) human populations or groups produce an exact equality in the number of the sexes at reproductive age, practically all groups fall into one category or the other. The facts show (what is biologically understandable) that the monandrous woman outbreeds the polyandrous woman—in other words, polyandry hinders or is unsuitable to reproduction. In every community there exists a tendency for the men to become polygynous to the extent that the ratio of women to men makes possible; frequently, however, they are polygynous even when the ratio is unfavourable, but in no community do we find any appreciable proportion of the adult males remaining permanently celibate. It follows, therefore, that if the men exceed the women, the women become polyandrous, and if the women exceed the men a greater number of the men become polygynous and a greater number of the women remain monandrous. Thus the polygyny not the monogamy of the men becomes the real alternative to the polyandry of the women; in other words, polygyny is the only insurance of the general monogamy, or more strictly monandry, of women.

5. The progress of miscegenation is correlated to variations in the balance of the sexes.

6. The influence of miscegenation brings about a change in the adaptability of a stock, the hybridised stock being more adaptable to changed conditions, but less adaptable to the unaltered or constant conditions that suited the more highly specialised stock. Cross-breeding will, therefore, only promote growth in population when a revolution in living conditions renders the purer stock unadapted to them. Variations in masculinity as the result of miscegenation are conditioned by this fact.

Few anthropologists seem to have paid sufficient attention to the relation between the sex-ratio at birth and the sex-ratio at the reproductive age categories. The latter, which implicates variations in the sex survival rate, is of far greater consequence anthropologically and is far more variable, although usually the least considered. It is sometimes assumed that the sex-ratio (at birth) is constant for ethnic groups.\* Adequate examination shows that the birth sex-ratio is not always constant within ethnic groups. Within a group the birth sex-ratio is not only influenced by ephemeral disturbing features in environmental conditions.† It is

\* Recently this assumption was made by Dr. Parkes in an article in *Man*, October 1923, on "The Respective Sex-ratios of White and Coloured Races."

† Savorgnan has published the results of an analysis of the influence of the European War on the birth sex-ratio, which is discussed by J. S. Huxley in the *Eugenics Review*, Vol. XIII, p. 549.

also affected by factors producing the progressive decline of groups distinguished ethnically and in other ways. Miscegenation influences the birth sex-ratio and the sex-survival rate, but, as pointed out, not consistently in the same direction, since miscegenation may either promote adaptation to changes in environment or by altering constitutional qualities render the miscegenated stock less adaptable to an unchanged environment, while these changes in adaptability are reflected in variations in sex-ratios. If it were possible to compute the prenatal sex-ratio and so eliminate the factor of differential foetal mortality, variations in the initial sex-ratio would be correspondingly reduced. The important factor for computation is thus seen to be the differential sex-survival rate.

Although my conclusions appear to me to rest on a sound analysis of such data as is available, or at any rate such data as I have been able to obtain, it cannot be denied that it would be satisfactory to have available for scrutiny and study a far more extensive and exhaustive demographic data and vital statistics, which could give us accurately such facts as the rate, extent, and progress of miscegenation, vital statistics in categories in which the slightest admixture of blood is discriminated as far as possible, and variations in sex-ratios.\*

G. PITT-RIVERS.

America, Archæology.

Nuttall.

**Fresh Light on Ancient American Civilisation and Calendars :  
a Summary of a Communication to Section H of the British  
Association at the Oxford Meeting, August, 1926.** *By Mrs. Zelia Nuttall.* **3**

An accurate knowledge of the true length of the solar year by primitive people has always been regarded by modern writers as an intellectual achievement which has entailed a prolonged series of careful observations by the ancient astronomer priests. Recently, a prominent American scholar wrote of the Mayas :—  
“The true length of the year was probably obtained by observations at sunrise  
“or sunset on summer or winter solstices. From some fixed point of observation,  
“such as the doorway of a temple, the extreme point on the horizon reached by  
“the sun in its northward march could be accurately determined. Over a period  
“of years the average solstitial period could be readily obtained if only the days  
“were recorded and the intervals compared.”

In her preliminary announcement of her discovery Mrs. Nuttall demonstrates that, as all the centres of Ancient American culture are situated between 20° N. and 20° S. of the equator, the inhabitants had a much more simple means of learning the true length of the solar year. In point of fact, the sun itself registered it for them, as, within this zone, the sun passes twice a year through the zenith, causing the striking phenomenon that, for a moment about noon, all vertical objects are shadowless.

Mrs. Nuttall submitted a solid array of irrefutable proofs, consisting of historical, documentary, archæological and pictographical evidence, which establish beyond a doubt that the Mexicans, Mayas, Centro-Americans, Ecuadorians, Peruvians and others inhabiting the same zone, observed the strange periodical disappearance of shadows and interpreted it as “A descent of the Sun-god.” As this descent was always immediately followed by rains, caused by the heat of the vertical solar rays, this momentary descent, which marked the advent of the rainy season, was of transcendental importance to the native agriculturists. After this “descent of the god” they could confidently sow the seeds of maize and other food plants

\* I have elsewhere suggested the heads under which the required data could be collected; see “Report, Committee on Vital Statistics of Primitive Races.” *Proceed. Austral. Ass. for the Adv. of Science*, Vol. 17, pp. 113-119. (1924.)

with a certainty of rain. Mrs. Nuttall showed how the observation of the significant solar phenomenon and its vital importance, on account of its intimate association with the arrival of the rainy season, gave rise to the religious ideas, the form of cult, as well as the art and architecture prevalent throughout Ancient America.

It explains why, as civilisation gradually advanced under favourable conditions, this phenomenon, first observed by means of any vertical staff, pole or stone, led to the erection of pillars, stelæ, altars, towers, shrines and temples, ultimately erected on the summits of pyramidal structures, which were to serve as worthy seats or places of rest for the descending Sun-god and constituted constant invitations for him to descend and linger.

Garcilaso de la Vega, the native Peruvian historian, records that the sun-pillars on which the Sun-god rested "plumb" were of particular sanctity.

It also throws light on the purpose of the mysterious "intihwana" of Peru that are so numerous and consist of a large circular platform in the centre of which is a conical altar. Just as the Pueblo Indians of to-day celebrate their New Year's festival by laying the seeds and roots of all food plants upon the altar, so that the sun might descend into them and give them life and vigour, so the Ancient Peruvians may well have done the same on these platforms, the name of which signifies literally "the point where the sun stays, i.e., is fixed."

In Guatemala, Yucatan and Mexico similar structures and ceremonies were held. The strange "Chultunes" of Yucatan, the subterranean structures shaped like a long-necked decanter with a circular opening at the top, large enough for a person to be lowered into the chamber below by means of a rope, were obviously admirably adapted for the accurate registration of the passage of the sun through the zenith by persons occupying the wide chamber below. The perfectly preserved "Chultun" at Yakal-Xic, photographed by the late Teoberto Maler, is surrounded by a large circular platform with a cemented floor and a low surrounding wall, and the entrance to the underground chamber is in the middle of a square central altar.

A new light is also thrown on the purpose of the deep vertical shafts that have been discovered in ancient ruins.

Mrs. Nuttall also demonstrated by means of numerous illustrations, pictorial and sculptural, how the Sun-god was represented as descending in human form or in that of a bird (a quetzal or a humming-bird=huitzilin) or ocelot—and was generally associated with plumed serpents, which symbolise the rains from heaven that invariably followed his descent.

By means of tables giving the varying dates of the passages of the sun through the zenith of each latitude and the intervals of days between these passages, furnished by the President of the University of California, W. W. Campbell, the ex-Director of the Lick Observatory, whose valuable aid Mrs. Nuttall gratefully acknowledges, she was able to localise the origins of the Tonalamatl, or period of 260 days, which forms the basis of the Mexican and Maya calendar system, as it proves to be a natural period which determined the regulation of communal life, during untold centuries, in a zone, proven by recent archæological investigations by Señor Gamio and others, to have been inhabited at a remote period by an archaic civilisation.

Mrs. Nuttall also notes that the interval of days between the two descents of the Sun-god, in other archæological zones, being of 282 days, or the average period of human gestation, this furnished a plausible explanation of the origin of the native local belief in "Sons of the Sun" of divine descent, who formed the ruling, privileged class.

She pointed out that there was no reason why the identical belief and solar cult should not have originated and developed independently in the same latitude,

under identical climatic conditions in other parts of the world, and referred to Nubia, Ethiopia and Southern Egypt as lying in the same zone.

Mrs. Nuttall's communication, the outcome of an investigation extending over thirty years, proves primarily that the religions and calendars of Ancient America all had a common and local origin.

Based on the recognition of a striking, periodically recurring solar phenomenon marking the advent of the vitally important rainy season, this gave rise to a logical sequence of *naïf* inferences and the invention of a ritual in keeping with the psychology of a peaceful agricultural people, such as the Pueblo Indians of to-day.

Possibly first suggested by the observation that the sun absorbed moisture, the idea that the offering of life-blood to the Sun-god seems to have developed, culminating in the hideous idea conceived by the barbarous Aztec priesthood of divinities thirsting for human blood and demanding this in exchange for the bestowal of life-giving rains.

Mrs. Nuttall's discovery forms a complement to her publication, in 1901, of the view that the fixity of Polaris and the periodical changes in the positions of the circumpolar constellations, coinciding with the four seasons of the year, enabled primitive observers, inhabiting northern latitudes, to determine accurately the true length of the year, while their discovery that Polaris could serve as an infallible guide in travel by land and sea inspired a logical train of thought which led to the adoption, as a sacred symbol, of the swastika or cross.

In a future paper, Mrs. Nuttall will show that it is possible to trace the migration and fusion of the two sets of ideas inspired by local natural phenomena which, for the sake of brevity, may be designated as the "Polaris" and the "Zenith solar" complexes.

#### Britain: Archæology.

Goddard: Stone: Clay.

**Stonehenge—concerning the Sarsens.** By the Rev. E. H. Goddard, F.S.A. 4

Mr. E. H. Stone, F.S.A., in MAN, 1926, 132, gave the reasons for his conclusion that the sarsens of Stonehenge came from the immediate neighbourhood and not from the Marlborough Downs. He assumes that there was a small deposit of a particularly tabular type of sarsen somewhere on the plain near by, which was practically used up in making Stonehenge, the remains which were left over being subsequently taken for building and other purposes, so that no sign of the deposit is now to be found on the plain. He also states that the sarsens of the Avebury neighbourhood are none of them of this tabular variety, so that the Stonehenge stones could not have come from that locality. It is, of course, impossible actually to *prove* that large sarsens, tabular or otherwise, never existed in any number on the plain—and there is no geological reason why they should not have been there—except that the existing evidence goes to show that they never were. Small boulders of hard sarsen, not more than a foot or two across, do certainly occur, but very sparingly, and there are perhaps half a dozen, if so many, larger sarsens in various positions on the plain, but that is all. That there were no more in the latter half of the seventeenth century we know from the statement of Aubrey.

The real sarsen country stretches from the northern edge of the Pewsey Vale right along the chalk escarpment into Berkshire—and for the whole of that distance sarsens are to be found everywhere—not, indeed, everywhere in their natural state now, for the work of destruction has been going on apace for the last 150 or 200 years. It is safe, however, to say that wherever sarsens have occurred naturally—though there may not be a single natural example left—there you will find their

remains to-day. Sarsen, indeed, is practically indestructible—nothing short of breaking it up for road metal can really *destroy* it, and, except in a few modern instances, near Marlborough, sarsen has never been used in this way for road mending. Flints have been everywhere available on the chalk and have always been used for this purpose, both in north and south Wilts, until recent times. But sarsen has been used extensively wherever it occurs for three special purposes—for building houses and garden walls, for splitting up into field gateposts, and more especially in the form of more or less cubical pieces for forming pitched paths and yards.

Now, hard sarsen never wears out, and any soft portions would not, of course, be used for either of these purposes; but a gatepost, a stone in a wall, or a cube for "pitching" is practically everlasting, and where it has once been used it remains in some form or other. In literally every village from the north edge of Pewsey Vale into Berkshire you will find every old garden wall and every pitched path made of sarsen to this day; but south of Pewsey Vale, and in the villages on the plain, you will find nothing of the kind—no sarsen gateposts, no sarsen walls, and no sarsen pitched paths. Instead, the old garden walls are universally of "mud," plastered and thatched or tiled. Surely the only reasonable conclusion is that there never were enough sarsens on the plain to be used for these purposes, or they would have been so used as they were universally in north Wilts and Berks as the sarsen country. If they ever had been used, they would have been visible to this day in some form or other, and no remains of them are visible.

As to Mr. Stone's contention that the sarsens of the Marlborough Downs are not and never were of the tabular type, from which he believes the Stonehenge sarsens to have been cut, or split out, he is, no doubt, right in saying that tabular sarsens are not much in evidence now in the "valleys of stones." This is true and for a very good reason: a flat sarsen is obviously the best material either for splitting up into long gateposts or cubical blocks and the stonebreakers who have been at work for 150 years have seen to it that most of the stones best fitted for their purposes have been used for that purpose. But that there were plenty of tabular sarsens in north Wilts at one time the existing remains of Avebury sufficiently prove. Of the eleven stones of the avenue between Avebury and West Kennet the two now standing are distinctly of flat tabular form. So are the two great stones flanking the original entrance into the outer circle where the Kennet Road enters Avebury. The single stone of the avenue close by is of the same type, as also is the great slab stone of the outer circle abutting on the Swindon Road. But of all the slab-shaped stones now remaining, the two now standing, of the "cove" in the centre of the northern circle, are the best examples. That all these stones were chosen because of their tabular form is clear from the fact that in every case they are set up so that their flat sides correspond with the line of stones of which they form a part. It is thus clear that tabular sarsens form a considerable proportion of the still existing stones of Avebury, and inasmuch as the flattest stones are always the easiest to split up, it is highly probable that a still larger proportion of those which have been destroyed were of this "tabular" form, and it cannot be argued that these "tabular" stones did not occur on "the Marlborough Downs." As to the impossibility of splitting out the rectangular uprights and lintels from north Wilts' sarsens, rectangular gateposts could certainly be accurately split out of them, for they exist in numbers in that neighbourhood. In view of the above facts, the editor of the *Wiltshire Archaeological Magazine* still maintains that the weight of evidence and probability is against the south Wilts origin of the Stonehenge sarsens.

ED. H. GODDARD.

My article on this subject published in the issue of MAN for November last has evoked some adverse remarks from the Revd. E. H. Goddard, to which I submit the following reply. The subject has been somewhat fully treated in my work on *Stonehenge*, and to avoid repetition I have here noted the pages in that work to which the reader is invited to refer for further details.

In my article in MAN I noted certain facts which appear to make it probable that the sarsens for Stonehenge were obtained from the immediate neighbourhood. Mr. Goddard, however, is of opinion that the sarsen stones for Stonehenge could not have been obtained in the neighbourhood, because the sarsens *now remaining* on Salisbury Plain are few and far between and generally small in size. This, it must be admitted, is a very reasonable contention.

Mr. Goddard has set forth well and clearly all that can be said in favour of his opinion. He has stated his case fairly and impartially, and his paper must be regarded as a very interesting contribution to the literature on the subject.

The published literature concerning the sarsens is somewhat extensive. A bibliography embracing eighty-six works on the subject is given by Prof. T. Rupert Jones in Part II. of his "History of the Sarsens," published in the *Geological Magazine*, Dec. 4, Vol. 8.

Mr. Goddard has, I venture to think, scarcely succeeded in disposing of my arguments. Geologists are agreed that the sarsen-forming stratum of the Bagshot Sands extended over the Stonehenge district, and on Salisbury Plain are still to be seen a number of sarsens, some of which are of considerable size (*see* "Stonehenge," p. 72).

The sarsen-forming sand stratum on Salisbury Plain, as compared with the deposit on the Marlborough Downs, was probably thin and more or less discontinuous—the conditions being favourable to the formation of the flat tabular slabs of sarsen from which the stones of Stonehenge were undoubtedly obtained.

I am unable to agree with Mr. Goddard that many of the existing stones now to be seen at Avebury would have fulfilled these conditions. Some of the Avebury stones certainly have surfaces more or less flat, but (excepting the leaning stone in the "cove") they are all evidently merely big boulders, formed irregularly in a very much thicker sand stratum. They are of quite a different character from the stones of Stonehenge as has been explained in my article now under reference. (For further particulars *see* "Stonehenge," pp. 45-48, 53-55 and 68-74).

It will be observed that the question here at issue between Mr. Goddard and myself does not depend on archaeological considerations. It lies in the province of the geologist, the petrologist, the practical stone-worker, and the engineer.

E. HERBERT STONE.

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Mr. E. H. Stone in his article on "Stonehenge—concerning the Sarsens" (MAN, 1926, 132) attempts to prove that the sarsen stones of Stonehenge were obtained from the immediate neighbourhood.

Archæologists who have had experience of field work agree with Rev. E. H. Goddard when he states that "The whole of the available evidence is against the presence of large sarsens on the plain at any time." The fact that hammerstones in the Marlborough district are almost invariably of sarsen, whereas in the Stonehenge district those of flint predominate, and that a few miles further south hammerstones of sarsen are seldom, if ever, seen, indicates that sarsens were very common on the Marlborough Downs, uncommon near Stonehenge, and absent on the southern borders of the plain. Small lumps of sarsen are very suitable for use

as hammerstones, and would naturally have been selected by prehistoric man for that purpose whenever they were present on the surface.

If further evidence is required it may be as well to consider the lynchets, that is to say, the boundaries of the cultivated areas upon which prehistoric man dumped any large stone turned up by his plough. In the Marlborough district lynchets are full of sarsens of all sizes, whereas in the middle of the plain they contain only a negligible quantity. This goes to prove that the earliest cultivators of the soil found great quantities of sarsens lying upon the ground in the Marlborough district, but very few in the plain. The absence of sarsen gateposts and sarsen blocks in old buildings adds strength to Mr. Goddard's statement.

What proof is there that the Stonehenge stones were made from tabular and not from irregular blocks? The front and back of the stones have suffered much from the action of the weather, whereas the sides have been more or less protected by the stones next to them.

R. C. C. CLAY.

### Assam: Technology.

Walker.

#### The Garo Manufacture of Bark Cloth. By G. D. Walker, I.C.S.

5

Some tribes in the Garo Hills make their blankets from bark. The material is called *simphak*, the bark is *amphak*, and the tree chiefly used is *phakram*, *Grewia* (Leea) *lilæfolia*. Other trees sometimes used are *thewek* (like *phakram*, leguminous), *phrap* (a ficus) and *chram* (an arto-carpus). According to all my informants the *dimbri* and *amisep*, mentioned by Playfair, are never used.\*

The bark is taken from the main stem of the tree in all cases, except sometimes with *phrap*, when the tree is a big one, in which case it is taken from a branch. To loosen the bark the tree is thoroughly beaten, when it is *thewek*, *chram* or *phrap*, but this is not necessary for *phakram*. Two rings are cut on the stem about eight feet apart. These are joined by one vertical cut. The bark is then stripped off with the fingers. It is put out to dry in the sun for two or three days. The strip is about 8 feet long by 18 inches to 2 feet wide.

The outer green layers of the bark are shaved off with a *dao*. For this the bark is laid along a log, and the *dao* is held in both hands. Every scrap of green

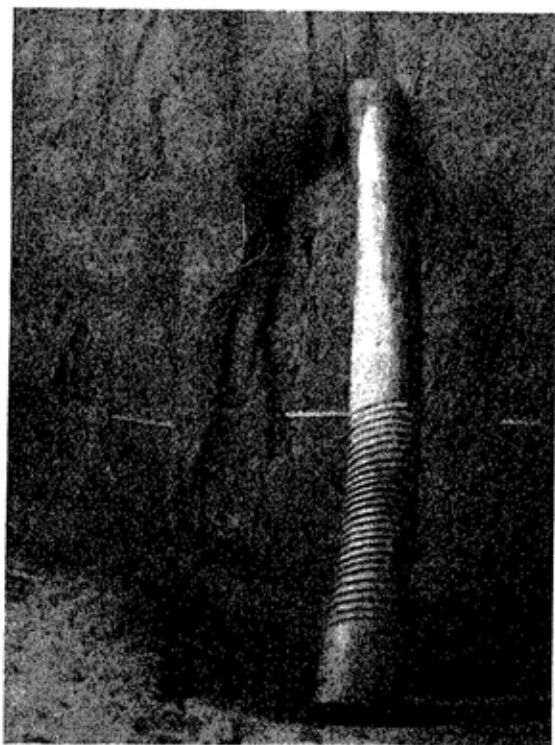


FIG. 1.—*Phanil* USED BY THE GAROS FOR MAKING BARK CLOTH. THE BACKGROUND IS THE CLOTH ITSELF (*simphak*).

\* See Playfair, "The Garos," pp. 57, 58. Playfair's spelling *anisep* is probably a misprint. His account is perhaps misleading, as he describes the cloth as a "web or network of fibres," but no weaving or netting process is employed.

is carefully removed until the reddish-brown fibre is completely exposed. This is then beaten with a peculiar mallet called *phanil* (Fig. 1).

The *phanil* is a cylindrical stick of a tough wood (*pharwang*), about 18 inches long. One I measured was 2 inches thick for 10½ inches of its length, the rest being the handle, 1½ inches thick. The first inch-and-a-half of the "head" is left smooth, but the next 5½ inches are occupied by one continuous spiral nick or groove of 32 turns. This nick is sharply triangular in section, and is made with a *dao*. I was told a man could make a *phanil* in about an hour. It is probably cut spirally to get the notches equal and evenly spaced.

For the beating the bark is laid along a log—a *chaam*, a paddy-husking mortar, on its side, comes in handy—the beater squats alongside and hits the bark with sharp, rapid strokes until the whole of one side is covered with the impression of the



FIG. 2.—GARO BEATING BARK INTO CLOTH WITH *phanil*. From a photograph by Mr. G. D. Walker.

the frayed ends into a bunch in one hand and slices them neatly off with a *dao*. The bark is unfolded, and needs only to be dried to be ready for use. The process has widened and shortened it. It is now 5½ to 6 feet long by 3 feet wide.

A number of these strips are sewn together, in thickness as well as in width, to form a thick blanket about 6 feet square and six or seven-ply. The price of one such blanket, made up of twenty or more strips, is only one rupee.\*

The cord with which the pieces are sewn together is called *omak* or *olmak*. It is made from the bark of a tree of that name, the fibre being twisted by rolling it along the thigh.

The making and use of *simphak* is confined to the Matchi and Chisak tribes of Garo, inhabiting the eastern half of the district. The rest do not seem ever to have had it, but it is found everywhere among Matchis and Chisaks. They prefer cotton-blankets, but find them relatively dear.

G. D. WALKER.

## REVIEWS.

Oceania: Technology.

Hambruch.

*Oceanische Rindenstoffe*. Paul Hambruch. Gerhard Stalling: Oldenburg i.O. 1926.

This little book of 74 pages is a useful summary of the art of making bark-cloth. Dr. Hambruch finds that the first mention

of bark-cloth was in 1595, but, so far as is known, the first specimens from the South Seas were brought to England by Captain Cook and pieces of these were published in 1787 in a "Catalogue" by an unknown author. Dr. Hambruch evidently has not had access to the article

\* I am sending a specimen of both the cloth and the *phanil* to the Pitt-Rivers Museum. The material produced is probably more akin to the rougher production of Madagascar (*vide* Sibree, "Madagascar Before the Conquest," p. 330), than to the beautiful fabrics of Samoa.—G. D. W.

"A Book of Tapa," by H. U. Hall, *The Museum Journal*, Philadelphia, March, 1921, p. 9, in which this rare book is described and discussed. In addition to the copy in the Library of the University Museum, Philadelphia, Dr. G. B. Gordon (*l.c.*, p. 5) refers to copies in Paris, Honolulu and Salem, Mass. To these can be added the copy in the Hamburg Museum, two copies in the Library of the Ethnographical Department of the British Museum, one in the Library of the Royal Geographical Society, one in the library of Mr. J. Edge-Partington, and I also possess a copy which has 51 specimens of tapa. A comparison of the English copies proves that it is impossible to collate the specimens with the original printed list; apparently none of the assembled examples of tapa are arranged in exactly the same order and many cannot be identified by internal evidence. Dr. Hambruch deals briefly with names for bark-cloth in Oceania, distribution, legends, raw material, colours, scenting, the sticking of sheets together, implements used in manufacture, method of manufacture, patterns, uses, etc. Probably bark-cloth was once made all over the Pacific. In Micronesia it is used only in Ponape; elsewhere it has been driven out by the highly-developed art of weaving. It has disappeared in some parts of Polynesia; the Maories took the art with them to New Zealand and one of the plants, *Broussonetia papyrifera* (the paper-mulberry), and for a long time made *aute* (*tapa*); but this art died out soon after the early settlers arrived, as the strong native flax was found more suitable for clothing in that relatively cold and windy land, and the plant itself has now died out. The very fine monograph, "Ka Hana Kapa" (Museum Press, Honolulu, 1911), by the late Dr. W. T. Brigham, contains a mass of detailed information, which has naturally been drawn upon, but other authorities have also been consulted by the author. The book is illustrated by 34 figures in the text, 5 coloured plates (3 of which are from Brigham) and 29 photographic plates, most of which are from specimens in the Museum für Völkerkunde in Hamburg, and form a valuable series of new illustrations of *tapa* designs. There are very many examples of undescribed *tapa* in various museums in the British Islands: for example, in Belfast there are some fine specimens, which were collected in 1843. The collection of bark-cloth in the Peabody Museum of Salem, Mass., U.S.A., is one of the finest in the world and contains many very old pieces, brought back by Captain Cook and other early voyagers. A catalogue of the Ha-

waiian collection was published in 1920 and contains a list of the specimens of *tapa*, with plain and coloured illustrations. (The wealth of this museum in early ethnographical specimens from Oceania appears to be little appreciated by students). It would, however, be an enormous task to study the available material and so we cannot but thank Dr. Hambruch for what he has done. It may be mentioned that on pl. 3 he figures what he terms a "*Lendengürtel*," from Eromanga, but as the illustration evidently shows only a small part of the whole specimen it cannot very well be a loin-girdle. A few years ago Mr. A. M. Hocart gave to the Cambridge Museum of Archaeology and Ethnology a "shroud from the New Hebrides," which is certainly similar to the specimen in the Hamburg Museum. There is also a similar specimen in the British Museum described as "a mat from Efate," an illustration of which will be found in Speiser's fine monograph "*Ethnographische Materialien aus den Neuen Hebriden*," pl. 78, fig. 9; but Speiser (p. 268) is inclined to attribute it to Eromanga.

The reader may be reminded of H. Balfour's suggestion as to the origin of stencilling on *masi* in Fiji (*J.R.A.I.*, LIV, 1924, p. 347) and the short illustrated account of *masi* by H. Ling Roth, "The Fijian Collection" (*Bankfield Museum Notes*, No. 1, 1902, reprinted from the *Halifax Naturalist*, v. 1900).

A. C. HADDON.

#### Prehistory.

#### Begouen.

*Bison of Clay*. By Max Begouen.

Translated from the French by Robert Luther Duffus. Longmans, Green and Company. 1926. Pp. 252. Price 7s. 6d. net.

Probably not since the appearance of that delightful story, "The Mastergirl," in 1910, has the public been given a prehistoric novel written by a real student of the subject. There has long been room for such a book, both as a means to arouse interest among amateurs and to combat ideas such as that cave man fought dinosaurs!

Count Begouen, Professor of Prehistory at Toulouse, needs no introduction to the readers of MAN, and his son, the author of the above book, is also a keen prehistorian. Brought up in the Ariège, a district abounding in caves, he shares with his brother and a friend the honour of having discovered the famous clay bisons in the subterranean depths of the Tuc d'Audoubert.

As regards the subject matter of the book, a most attractive story about the

usual brave young warrior and an exceptional woman-chief whom he must woo rather than drag off by force, forms the foreground and provides the excuse for many realistic pictures of cave life as it must have been in France in Magdalenian times. Such things as the subservience of man to climate and his dependence upon game returning with the seasons, the fear in the mind of the primitive man of all that seems to him supernatural, and the tragedy of useless old age in a community so pressed by the rigours of nature that the feeding of those who cannot contribute to the support of the clan is an economic impossibility, are well introduced. All the weapons with which the characters are equipped are carefully and correctly described from originals. The engraving of a bison on a cave wall is made the central act of a "magic" which has as its object the strengthening of the arm of the hero in his pursuit of such a beast, the whole ceremony being conducted by the "Shaman," or tribal sorcerer. The modelling of the clay bisons themselves is similarly framed. This sorcerer is well portrayed. We see how he combines in his person the offices of high priest and prime minister, but emphatically not that of general. His battles are fought and his food is hunted for him! He wields his power by virtue of a superior knowledge of natural phenomena and human psychology collected and handed on from sorcerer to sorcerer and the terror such knowledge enables him to inspire in his fellows. But let him make one mistake and he is lost.

Perhaps through drawing analogies from primitive peoples fetishes are somewhat unwarrantably stressed, and it is to be regretted that the book has lost some of its scientific value in the absence in the translation of the many excellent illustrations of tools which appeared in the French original, but altogether it is a charming tale and will give the outsider a very correct impression of the conditions under which Magdalenian man existed.

The translator has done his work well and has admirably caught M. Begouen's lively style, though the frequent use of the word prairie for the French *steppe* is perhaps misleading to English readers.

M. I. B.

#### Archæology.

Luquet.

*L'Art et la Religion des Hommes Fossiles.* G. H. Luquet. Paris: Masson et Cie. 1926. Pp. 234, 119 figures. Price 4s. 4d.

Those desiring a very readable account of Palæolithic art, illustrated by a large

number of excellent reproductions of well-known drawings, will welcome the above volume, but a student who wishes to tackle the problem suggested by the title of the book will be rather disappointed. As is to be expected, the author begins with several chapters devoted to an account of Palæolithic art, but there is little systematic study; it is rather a gentle wandering through pleasant country. Palæolithic art cannot be taken as a whole and treated as a single unity apart from the Cultures which produced it. Again, the Art of the Eastern Spanish style, although probably Palæolithic in date, is in all other respects totally unconnected with the northern group, and therefore should be treated quite separately. Further, "home" art should not be confounded with that of the caves.

When we come to the second part of the book dealing more particularly with the religious side of the problem, we are again, perhaps, rather disappointed. Quite rightly, the cult of the dead as an origin of the religious emotion is duly stressed, but the connection of the prehistoric art with the religious emotion has to be first of all demonstrated. This cannot be done merely by considering the drawings themselves, but requires a study of how the art occurs. Practically speaking, the motives which impelled Palæolithic man to venture deep into the heart of caves, and there to emblazon the walls with his wonderful drawings, must have been either (1) Decoration, (2) Desire of expression, (3) Magic. When the occurrence of the art in the caves is studied, it is at once obvious, from considerations such as position, superpositions, etc., that decoration and expression can be ruled out. Having decided that the motive was magic, it is for the psychologist to explain, with the help of analogous studies of modern primitive people, what was the religious significance of the drawings, and what is really meant by "sympathetic magic."

As regards the "home" art the case is different, as here decoration and expression may have played their part, to say nothing of the possibility of the making of sketches from Nature for use later in the caves, practice efforts, etc. In Eastern Spain the conditions are totally different, and what the motive was for decorating the rock shelters there is really completely unknown.

Although a good deal of the foregoing can be discovered in Mr. Luquet's book, it is to be regretted that for once the French clearness and logic—the building up of fact on fact to form a consistent

whole—is lacking, and that the work, though very readable, lacks scientific precision.

M. C. B.

#### Dancing.

Hambly.

*Tribal Dancing and Social Development.* By W. D. Hambly. Witherby, 21s.

9

Mr. Hambly's new book is a mine of useful information on a branch of anthropology to which very little attention has been paid.

The bibliography alone at the end of the volume is most valuable and will serve as a guide to future explorers in the same region.

The study of primitive dancing is by no means an easy one; there is a mass of undigested facts available to anybody wishing to study the subject, but it is an onerous task to cut and sift the useful from the useless. Mr. Hambly, we may say at once, has been entirely successful in this, and his researches cover a very wide field, as one would expect.

The book itself is primarily a study of dancing in connection with certain primitive ceremonials, and the chapters are divided accordingly. The chapter on Head Hunting and the War Dance is most illuminating, and the writer has a quiet vein of humour, which makes his book more readable than many others of the same kind.

The importance of dancing in the primitive state of culture and its close association with all the vital occurrences in the life of the individual or the community, are quite rightly insisted on from the first chapter.

It is surprising that more attention has not hitherto been paid by anthropologists to this branch of work, as it is almost impossible to take up any book on early civilisations without realising the need for some definite scheme of grouping these early dances and the significant facts connected with them. Mr. Hambly makes a tentative classification, but there is a vast amount of work still to be done in this respect.

One of the chief values of a book of this kind is that it stimulates the reader and suggests trains of thought on this very interesting subject.

The fascinating chapter of early musical instruments, tempts one to enquire whether another work on the lines of Balfour's "Natural History of the Musical Bow," could not be attempted on a larger scale. It is high time that the distribution of early musical instruments should be dealt with, in the light of such new and musical works as the one under review.

Further than this, the technical side of the dances themselves will have to be dealt

with soon, and some very interesting facts should emerge from a detailed study, if such a study be possible.

The chief obstacle in the way of such research is the vast amount of ground which has to be covered for the purpose of obtaining evidence, and the lack of knowledge of dancing of explorers, missionaries and others, who are responsible for communicating information with regard to savage tribes. It seems clear, however, that primitive dances are gradually falling into types, and in Mr. Hambly's book both from the litho-press and the illustrations, one can see order emerging out of chaos.

This book, therefore, is highly welcome, and marks a new departure in the important study of tribal dancing. There are numerous illustrations and photographs, and an excellent preface by Charles Hose.

E. GEOFFREY TOYE.

#### Anthropology, Physical. Shirokogoroff.

*Anthropology of Eastern China and Kwantung Province.* By S. M. Shirokogoroff. Royal Asiatic Society, North China Branch. Extra Vol. IV.

10

Dr. Shirokogoroff is to be congratulated on this second volume of his researches into the physical anthropology of the Chinese people. It forms a storehouse of fact, for which all those interested in the ethnology of the Far East will be extremely grateful. Although not yet free from typographical errors, great improvements have been made since the first volume, and the author shows a mastery of a foreign tongue which is to be envied. He has taken 24 measurements on about 700 individuals (including criminals and non-selected groups) in the provinces of Kiangsu, Chekiang, Anhwei and Kwangtung, and has worked out all the mathematical constants for this long series. For this alone he deserves our gratitude. Further, he has discussed the difference between these groups and his previous work in northern China by the method of interserial differences and has added some most useful ethnographic and geographical notes. Any one who has undertaken a work of this sort will realise the enormous amount of dull calculation required. And the result? That is more difficult to estimate. In a book of this type, where tables and figures bulk so largely, it is particularly necessary to marshal facts clearly, apart from theories, and to enable the reader to see the forest in the multitude of trees. The learned author begins by showing the enormous size of China, and states very truly that properly to investigate so big a land it would be necessary to take innumerable measurements. But even though he has

limited himself to few he seems to be overwhelmed with his figures and he has not made matters clearer by creating a series of abstract types, called by Roman or Greek letters. The result is that, except to the abstract thinker (and most anthropologists are rather practical men), the quest seems like the old case of looking for a black cat in a dark room. At intervals one comes in contact with the cat, at other times masses of figures surround the reader with a more than Egyptian darkness. I find it difficult, for instance, to understand "In cases of parasitic relations, also some forms of commensalism, between two ethnoses, the ideology of this psychology takes very complicated and veiled forms, which as such have to return the object of parasitism (or some forms of commensalism) from a complete understanding of motives." This obscurity of diction does much to detract from the great value of Dr. Shirokogoroff's work—I admit the unfairness of taking a sentence from its context, but most of the text is equally obscure—and it is to be hoped that the learned author will see fit to give us his views in a manner fit for "plain, blunt men." In the meanwhile we have his facts, and they are invaluable. L. H. D. B.

#### Anthropology, Physical.

Herrick.

*Brains of Rats and Men: a Survey of the Origin and Biological Significance of the Cerebral Cortex.* By J. C. Judson Herrick. The University of Chicago Press, 1926. Pp. xii + 382.

In this volume the distinguished professor of neurology at the University of Chicago reviews the present state of our knowledge about the functions of the brain. Of course, in so small a book a complete review is not possible, and Professor Herrick has confined himself to the discussion of the larger or more general problems; especially the localisation of cerebral functions, and the reciprocal functional relations of the cerebral cortex and the lower brain. The discussion is carried on by the comparative method, as the title of the book implies, and is one which every student of the nervous system may read with profit. But it is hardly one for the beginner. The author's general standpoint is very sane and broad-minded. He makes a refreshing stand against the extravagances of the "behaviorists," and tries to give due weight to the findings of introspection. He does not overburden the book with anatomical details, keeping them in due subordination to his main purpose—the elucidation of functions. He avoids the too simple and delusive formulations now so widely current which would see in all mental life nothing more than

motor habits formed by repeated random trial-and-error processes. He rightly insists upon the symbolic and purposive nature of human mental processes. But it is doubtful whether with all his confidence in the correctness of his scientific naturalism, he has not fallen into an untenable position. He speaks of evolution as a creative process, and of human activity as creative; he insists that "consciousness" is in causal relationship with other vital processes and that conscious thinking is an essential link in the causal sequences. He accepts strict mechanistic determination, rejecting as mysticism every interpretation that does not fit with this postulate. Yet he rejects with scorn materialism, idealism, epiphenomenalism, parallelism, and interactionism, and leaves the reader wondering what after all the author's own view amounts to.

The discussion does not include the problem of the nature of nervous conduction. It accepts the principles of vicarious usage of nervous energy, of drainage and of inhibition by drainage, and makes great play with the principle of reserves of nervous energy applicable in diverse directions. But the author, while rightly insisting on the strength of the evidence for these types of process, does not stop to consider how they may be reconciled with the now widely accepted all-or-none view of nervous conduction. The absence of all mention of this view and of the problem of specific nervous energies are striking omissions. Perhaps the most interesting contribution is the attempt to explain some of the more puzzling facts of abolition and restoration of functions after ablation of parts of the cerebral cortex. In the reviewer's opinion it is a defect that, although the thalamus is recognised as the seat of the affective processes, little is said of the reserves of energy and re-enforcements that may come from the thalamus, while much stress is laid on reserves of energy of the cortex. Yet the author does recognise the thalamus as one seat of reserves and re-enforcements of energy, and, perhaps, should he make himself better acquainted with psycho-pathology, he would be led to exploit this line more thoroughly. Professor Herrick is, of course, a thorough-going evolutionist and writes in terms of evolution of the homologies of the brains of men and animals; yet we find him asserting darkly that the gap between the anthropoid and the human brain has not been bridged. On the whole a notable book, going deeply into certain problems, touching very lightly on some or not at all on others of the many baffling problems of the field of psychophysiology. W. McDougall.

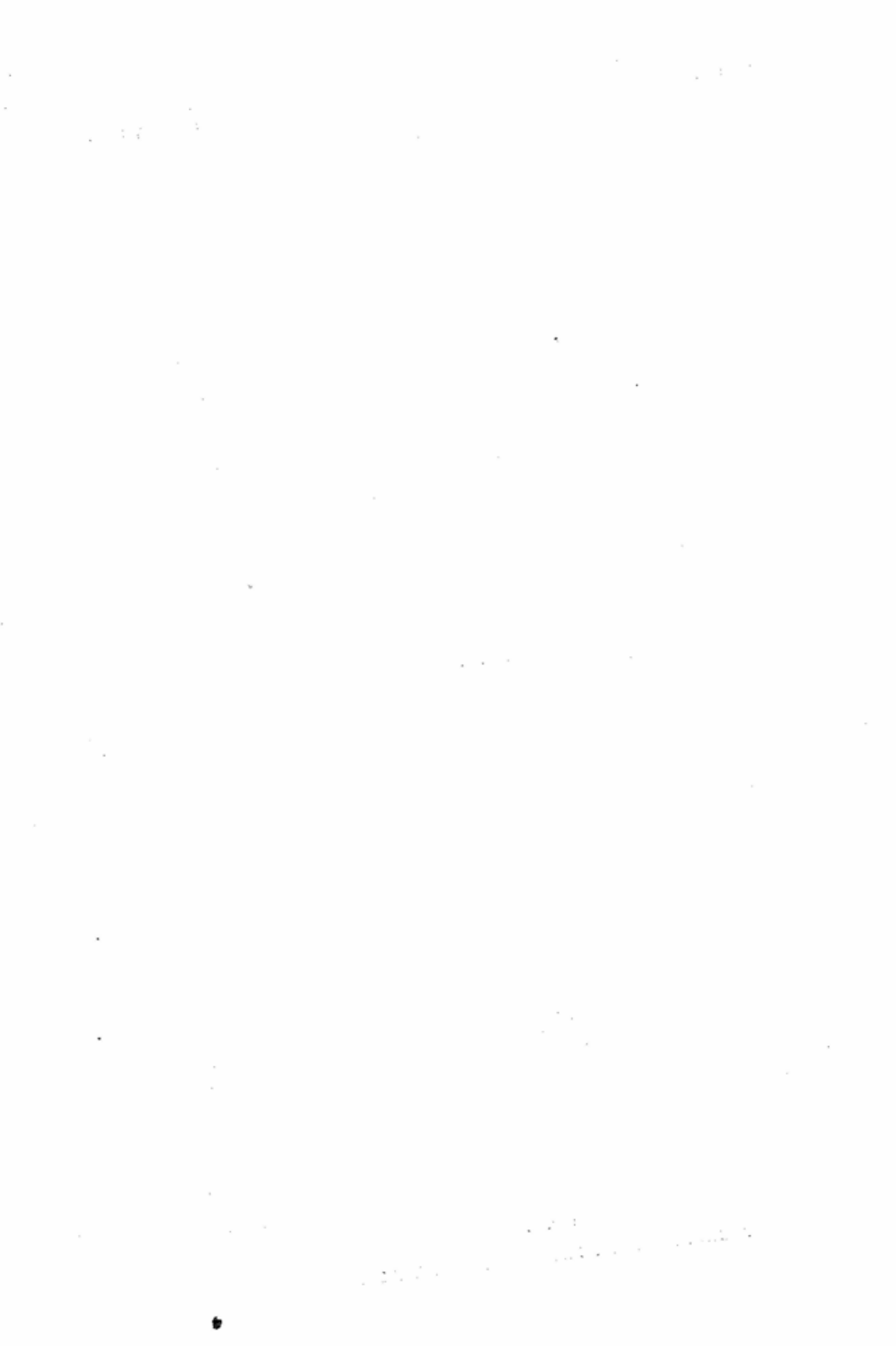




FIG. 1.



FIG. 2.

A BRONZE AGE TUMULUS AT DUNSTABLE.

## ORIGINAL ARTICLES.

With Plate B.

Britain: Archæology.

Forde: Smith.

**Report on the Excavation of a Bronze Age Tumulus at Dunstable, Bedfordshire.** By C. Daryll Forde. With a Report on the Human Remains found in No. 5 Barrow at Dunstable by Professor G. Elliot Smith, M.D., F.R.S. With Plate B. 12

The University College and Hospital Anthropological Society has recently undertaken the systematic excavation of the "Five Knolls Tumuli" on the Dunstable Downs near Totternhoe. These barrows lie about a mile west of Dunstable, on a projecting spur of downland on the main road to Tring, which here follows the Icknield Way (see Fig. 1). Five years ago No. 3 Barrow was opened with but small results. Three primary burial graves were found cut in the chalk, but no furniture or interment remained, and there was clear evidence of previous excavation of the barrow. In the summer of 1925, with the co-operation of Mr. T. W. Bagshawe of the Dunstable Museum, Barrow No. 2 was opened with but little better fortune. A large central area was cleared, but no sign of a primary burial was found. Two secondary cremations, numerous worked flint chips, some fragments of "beaker" and "neolithic" pottery and animal bones were the sole results of excavation. In July, 1926, work was continued on Barrow No. 5, when the remains of no less than thirteen individuals were found. The following is a brief account of this excavation.\*

No. 5 Barrow is the most northerly of the group and is bounded on the west side by the steep slope of the downs. Although the summit is considerably denuded, there were no signs of serious disturbance. It is regular in shape, with a diameter of about 50 feet, a height of 5 feet and diameter of the flat top of 22 feet (see Fig. 2, Plan and section of Barrow).

A trench, 4 feet wide, was cut through the centre of the barrow in direction N.E.-S.W., starting from the east side. (Bearing of trench, mag. N. 63° E., i.e., true bearing N. 49° E.)

*Skeleton No. 1* was an extended interment lying along the middle of the trench nearly over the centre of the barrow, and only 5 inches below the present surface. The skeleton was lying on its back with the head raised above the level of the body, legs extended and arms stretched down the sides, with the hands beneath the upper lumbar vertebræ.

*Physical Characters.*—It is that of a powerful, left-handed man of middle age. His living stature, as calculated from Manouvrier's tables, was 1.75 metres. The skull type is Alpine, with a cranial capacity (Dr. Lee's formula) of 1,652 cms., cephalic index 81, upper facial index 48, total facial index 76.5. The femur was

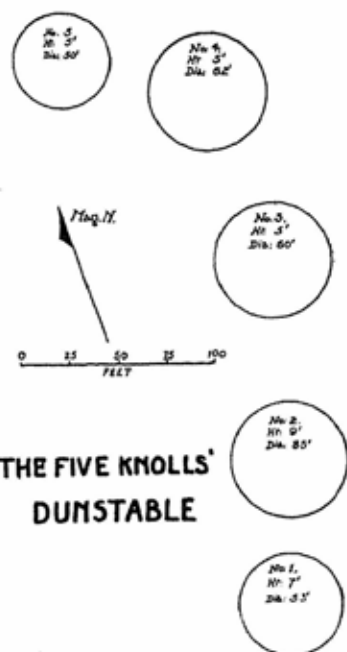


FIG. 1.—PLAN OF "THE FIVE KNOLLS" TUMULI, DUNSTABLE, BEDFORDSHIRE.

\* I am indebted to Mr. S. Zuckerman, M.A., for the investigation of the skeletal remains, and to Mr. C. A. Little for assistance in surveying the barrows.

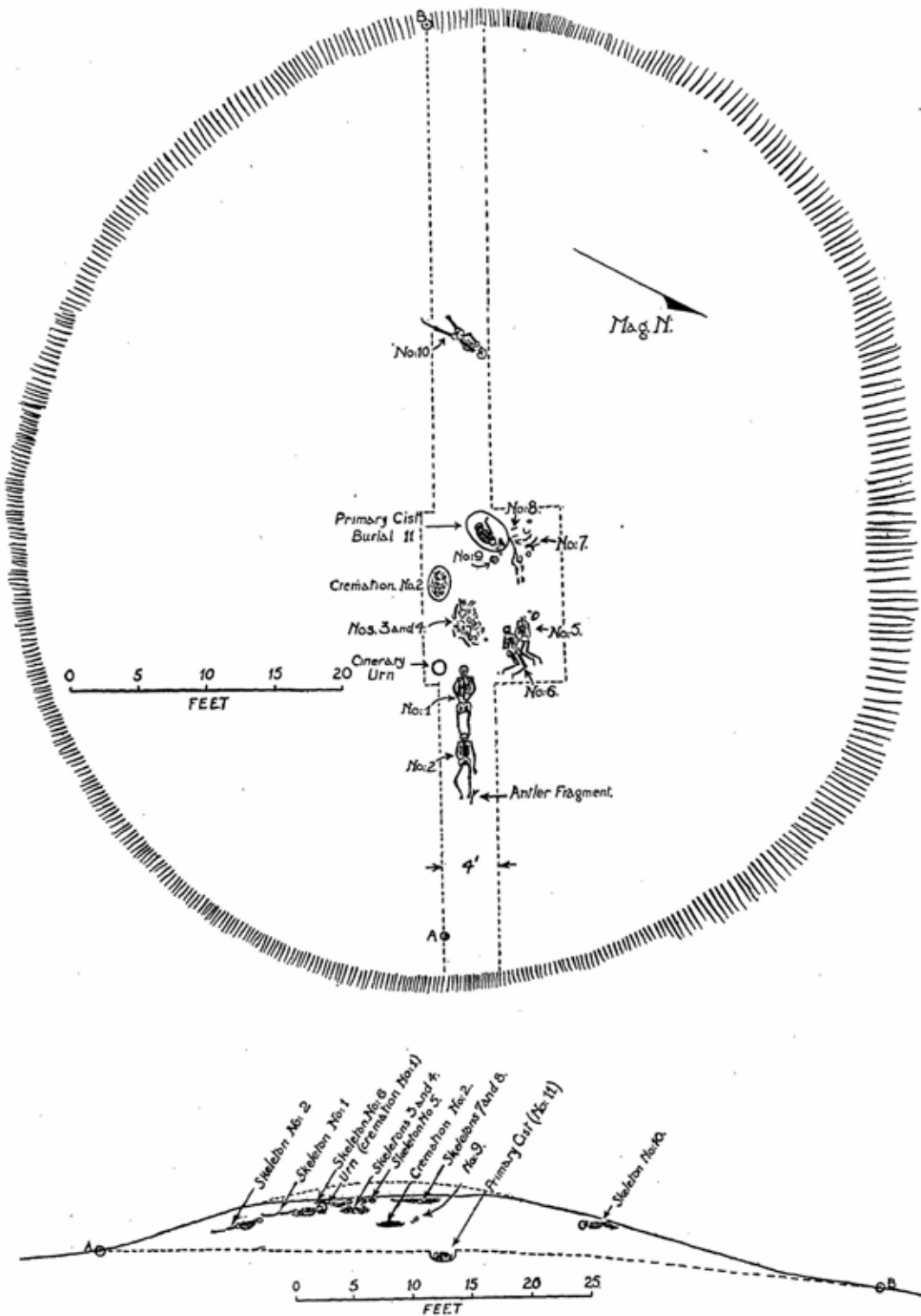


FIG. 2.—PLAN AND SECTION OF BARROW NO. 5.

platymeric, index 78·5; the tibia mesocnemic, index 69; while the feet were highly arched, slightly inverted, and the toes well splayed.

*Cinerary Urn.*—To the left side of the head was a large cinerary urn inverted over burnt bones, with its base 10 inches below the present surface and the centre of the base 24 inches from the skull (Pl. B, Fig. 2). The mouth of the urn was stopped with clay. This urn (height 14 inches, maximum diameter 14 inches) is of late Bronze Age type. The ware is coarse, poor, and badly baked. The urn collapsed on removal of the surrounding earth. It was decorated with a ring of "finger nail" impressions at the level of the carination, while the collar was covered with a series of oblique cord impressions on the face and a double line of similar impressions on the rim (see Fig. 3). As the minimum distance between the skeleton and the urn is only 17 inches, it would seem difficult to have interred them separately without disturbance. Mr. Reginald Smith, however, tells me that he would consider the urn to be decidedly later, and that in the absence of evidence to the contrary we can only assume a later date for the cremation burial. A cremation heap was found at a lower depth than the superficial skeletons, but, as no skeleton directly overlay it, we have no evidence for the greater antiquity of cremation burial in this barrow. It might be assumed, of course, that the superficial skeletons are modern and of relatively recent date, but their physical characters certainly point to Bronze Age types; while, if the urn and skeleton No. 1 were interred at different times, it would be easier to bury the pot without disturbance of the skeleton than to do the reverse.

*Skeleton No. 2* lay to the east, with the skull beneath the feet of No. 1 and extended in a similar manner.

*Physical Characters.*—Male, somewhere between 25 and 30 years of age; living height about 1·71 metres. Skull type Nordic; cranial capacity 1,567 c.c.; cephalic index 74·8, upper facial index 57, total facial index 94·9. The skull is slightly phænozygous, and moderate subnasal prognathism is displayed. The teeth meet almost edge to edge. The hyperconulid is present in the first and third lower molars, but is absent, strangely enough, in the second. The angles of the jaws are much everted, through the development of heavy muscle attachments. Femur platymeric, index 76·5; tibia eurycnemic, index 81·5; feet as in No. 1.

*Skeletons Nos. 3 and 4.*—Trenching was continued past the centre of the barrow to the west side, and in a position corresponding to that of skeleton No. 1 were the fragments of two skeletons, which seem to have been laid out in a similar manner to the first, but disturbed and scattered. These fragments are those of an adult male and an adult female. The platymeric female femur was remarkable for the undue prominence of the lesser trochanters. The 'squatter's facet' is faintly marked on a fragment of tibia.

*Skeleton No. 5.*—This was lying back upwards, with the thighs straight and shins flexed backwards. The skeleton had previously been disturbed, for the

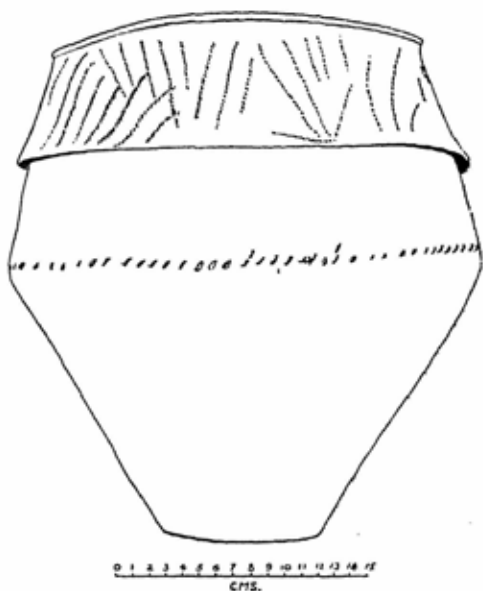


FIG. 3.—CINERARY URN FROM NO. 5 BARROW.

upper half of the vertebral column was missing, and only fragments of the skull were found.

*Physical Characters.*—Male; 25 to 30 years old; living height about 1.66 metres; skull fragmentary, all the sutures were open; femur platymeric, index 64; tibia mesocnemic, index 64; feet as before.

*Skeleton No. 6.*—Found immediately below and on the left side of No. 5, lying on its back with the head turned to the left, thighs extended and shins bent backwards. The right humerus was down the side and the right hand over the lower lumbar vertebrae. The left humerus was flexed outwards and the left hand under the lower lumbar vertebrae.

*Physical Characters.*—Aged female; living height 1.67 metres. Skull fragmentary; femur platymeric, index 61.5; tibia mesocnemic, index 70, slight 'squatting facet' present on lower end. Feet as in preceding skeletons. Humerus characterised by presence of supracondylar process and the supratrochlean foramen.

*Skeleton No. 7.*—Fragmentary and seriously disturbed, as if previously dug up and thrown in again. Bones were found only a few inches below the turf.

*Physical Characters.*—Male about 40 years old; living height about 1.65 metres. Skull, most of vault and base could be reconstructed from the fragments; cranial capacity 1,508 c.c.; cephalic index 78.6. Other bones fragmentary or missing.



FIG. 4.—CRANIA OF SKELETONS NOS. 1, 2 AND 11.

Note edge-to-edge bite of the teeth in No. 1 and parietal thinning in No. 11.

*Skeleton No. 8.*—Fragments belonging to an adult man. Roe deer antler found 2 feet down in middle of trench.

*Cremation No. 2* in a shallow oval depression, 2 feet 6 inches long, 1 foot 6 inches wide, and 3 inches deep, 2 feet 2 inches below the present surface. Yellow wood ashes and a few burnt cyclostrome shells were found with the incinerated remains. A few vertebrae and humerus of a pig were found near the incineration, and an ox tooth was found further away at the same level.

*Skeleton No. 9*, the frontal, parietal and occipital bones of an infant were found at a depth of 2 feet 9 inches, immediately above the primary burial. Near these, at the same level, were the jaw of a sheep and some hare bones, while a layer of small rodent bones, 3 inches thick and about 18 inches long, was found immediately above the cist at a depth of 3 feet 7 inches.

*Skeleton No. 10*, found on the western side of the barrow 9 inches below the present surface, was that of a man of about thirty years, extended on the back with head slightly raised, whose living stature was about 1.76 metres. The skull

type was Alpine, cranial capacity (Lee's formula) 1,456 c.c.; cephalic index 81, upper facial index 51; femur platymeric, index 67.5; tibia platycnemic, index 62; slight 'squatting facet' present.

*Primary Burial* (Pl. B, Fig. 1) in an oval cist cut into the solid chalk with vertical sides and flat bottom, length 3 feet 3 inches, width 1 foot 6 inches, bottom 5 feet 7 inches below the present summit. The skeleton lay in a crouched position on the right side. The sole furniture was a flint knife (*see* Plate B, Fig. 1), found under the right scapula. This female skeleton presented several peculiarities which are discussed in an appended Note by Professor G. Elliot Smith.

*General Note on the Skeletal Peculiarities.*—The only features which are common to all the skeletons in this barrow are those presented by the limb bones. The cranial forms vary, but within narrow limits, for, practically speaking, the skulls are all mesaticephalic (Fig. 4). In the limbs, however, we find certain special features common to all: the upper limb is either brachy- or mesaticercic, the lower limb brachycnemic, and the intermembral index borders on 70. Greater correspondence is found in the lower limb. The femurs are all platymeric. The most distinctive is that of skeleton No. 5, where the pull of the gluteus maximus has caused the bone to bulge laterally to a very marked degree in the region of the gluteal ridge. The "squatting facet" is distinct on the tibiae of the primary burial skeleton; it is also present, but not so well marked, on Nos. 6, 10 and 3. The feet were all highly arched, slightly inverted, and the toes were well splayed.

C. DARYLL FORDE.

#### REPORT ON THE HUMAN REMAINS FOUND IN NO. 5 BARROW AT DUNSTABLE.

By G. ELLIOT SMITH, M.D., F.R.S.

The primary burial was found in a cist cut in the solid chalk, elliptical in form, with vertical sides and flat bottom.

The skeleton was sharply flexed, lying upon the right side; the knees were drawn up in front of the face, and the right hand at the jaw. A flint knife was placed under the right scapula. The bones are those of a slenderly-built woman of Mediterranean type, about 5 feet (1.49 metres) in height, of middle age. Many years before her death her left ulna had been broken near the wrist, presumably fending a blow from a stick.

The feature of most interest, however, was revealed in the skull (Fig. 5) which presented a condition of very advanced symmetrical thinning, that is extremely rare in Europe, but very common in the aristocracy of Ancient Egypt from the Third to the Nineteenth Dynasties. In 1907 I discussed (*Journal of Anatomy and Physiology*, 1907, Vol. 41, p. 232) this peculiar incidence, and arrived at the conclusion that it was probably the result of wearing heavy wigs for long periods of time. We know nothing of the kinds of head-dress worn in the Bronze Age; but if this theory is valid the condition of the Dunstable lady's skull indicates that she was accustomed to wear either a wig or some other heavy type of headgear.

At the time when the note was written in 1907, no satisfactory explanation had been given of the mode of causation of the curious symmetrical thinning of the parietal bones which had been described originally by Maier (*Virchow's Archiv*, vii, 336), and subsequently by Sir George Humphry ("The Human Skeleton," 1858, pp. 242-243) and others. Sir George Humphry states that "the exact symmetry, the similarity of the deficiency in the several cases, and the absence of any trace of disease, render it most probable that the conformation was congenital." Maier, however, and the few recent writers (*e.g.*, Ziegler, "Text-Book of Special Pathological Anatomy," transl. MacAlister and Cattell, 1896, sections i-viii, p. 143), who refer to this condition, regard it as a senile atrophy.

In contrast to the rarity of the occurrence of this peculiar conformation in European crania—Sir George Humphry was able to find only six examples in European museums: one in Cambridge, four in Paris, and one in Berlin—it is very common in Ancient Egyptian cemeteries. It is produced by a gradual wearing away of the outer table of the cranium, until in many cases the diploe is reached, and even the inner table may become eroded. The causal factor invariably operates from the outside, and the shape of the cranial cavity is not affected. The process of erosion never attacks those parts of the skull which are covered by muscle, and a ring of bone (about a centimetre in diameter) around each parietal foramen is almost invariably spared. It is clearly due to some agent exerting *continuous* pressure on the cranial vault where this is unprotected by muscle, and the pressure may act by interfering with the blood supply of the bone. It cannot be congenital, because the examination of a large series of cases shows that it is certainly the result of the erosion of a properly-developed cranial wall; and, further, in more than seventy examples of this condition, there is not a single instance of its occurrence in an individual under 25 years of age.

It cannot, however, be regarded as a senile change, because it frequently occurs in crania where the coronal, sagittal and lambdoid sutures show no trace

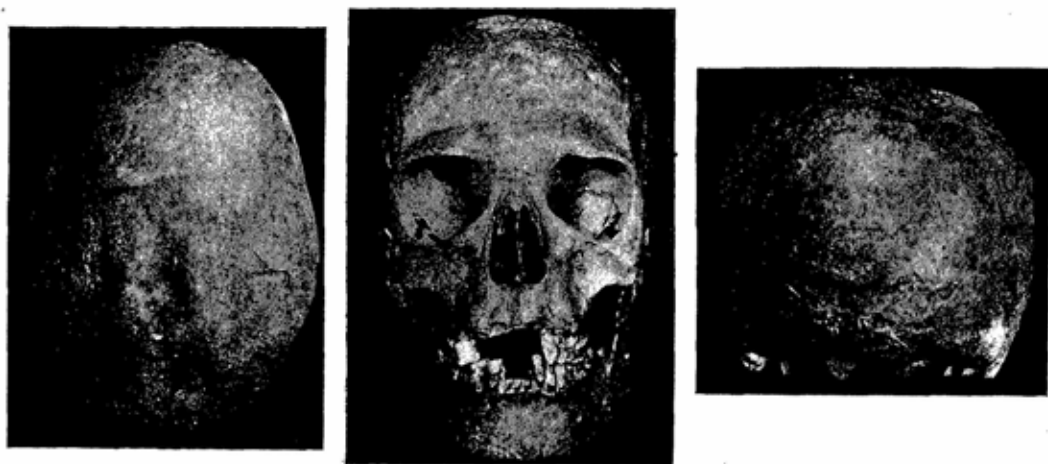


FIG. 5.—THREE VIEWS OF THE SKULL NO. 11; THE TOP AND BACK VIEWS REVEAL THE PARIETAL THINNING.

of closing. Nor has it any relationship to sex, occurring as it does in both men and women.

In the collection of ancient Egyptian crania, its distribution is peculiar. In large collections of crania of the most archaic period, I have not found a single example of this peculiar thinning, nor have I found it in any skulls later than the New Empire. It is only in the period between the Third and Nineteenth Dynasties, and only in the upper classes—i.e., in the tombs of wealthy people—that this atrophy occurs. This cranial thinning, in other words, is only found in those people who were accustomed to wear wigs of enormous proportions and of great weight. It is, of course, impossible to state dogmatically that there is a causal relationship between these two facts; but it is highly suggestive of the origin and the frequency of this thinning in a particular class and at one definite period. (See Report, British Association, 1914, p. 227).

The modern Egyptian Fellahin women are accustomed to carry on their heads water-jars of enormous weight; but I have never met a single case of thinning of

the parietal bones in these people. It is *continuous* pressure of a lesser weight, and not the intermittent application of a great weight, that brings about the atrophy.

These observations could have been made only under very exceptional circumstances, i.e., when large series of *accurately dated* specimens were available. It has been my good fortune to have had such material, together with the accurate information, provided for me by the Hearst Egyptological Expedition of the University of California, whose work has been conducted by Dr. George A. Reisner and Messrs. A. M. Lythgoe and A. C. Mace, who have always given me their assistance in this work.

In the Dunstable skull the symmetrical thinnings have extended right into the diploe, and in the front of the thinnings even into the inner table of the skull, to such an extent that the floor of some of the meningeal grooves has been eroded. There is complete closure of the coronal and sagittal sutures, and almost complete closure of the lambdoidal. The teeth, however, are moderately worn, and none of the pulp cavities have been opened. There is no sign of caries, although all the teeth are thickly encrusted with tartar. The skull is ovoid in form, with a prominent occipital bulging. The chin has a typical pointed form of the Mediterranean, and the facial characters as a whole are quite characteristic of this race.

#### *Measurements.*

The maximum length of the skull is	-	-	-	180 mm.
The maximum breadth of the skull is	-	-	-	134 "
The minimum frontal breadth of the skull is	-	-	-	93 "
The basi-bregmatic height of the skull is	-	-	-	123 "
The total facial height of the skull is	-	-	-	110 "
The upper facial height of the skull is	-	-	-	61 "
The maximum length of the right femur is	-	-	-	406 "
The oblique length of the right femur is	-	-	-	404 "
The maximum length of the left femur is	-	-	-	409 "
The oblique length of the left femur is	-	-	-	404 "

G. ELLIOT SMITH.

#### Anthropology, Physical : Mongolism.

von Bonin.

**Mongolism and Mongolian Traits.** By Gerhardt von Bonin, Chefoo, China.

13

In the wide field of medicine, the anatomy of the Mongolian race seems to be of special interest in two connections : on the one hand, some authors hold the views that there is a true relationship between that form of degeneration known as Mongolism and the Mongolian race ; on the other hand, a close relationship is claimed to exist between the Mongol race and the Orang, and this is brought to bear on the question of a polyphyletic origin of mankind.

It is, of course, only by a careful and detailed research that these problems can definitely be solved. But some points which lately have been brought into the foreground may, perhaps, with advantage be discussed here.

"The question of posture," Crookshank\* says, "is one of fundamental importance. It relates to intellectual development and life." Now, the Orangs—and cases of mongoloid idiocy as well—when at rest sit with their legs crossed under them, in the Buddha position, and one may naturally be inclined to state that this is, to use Crookshank's words again, the very position which is adopted "naturally and primarily and habitually by all races of the Mongolian division of humanity."

\* Crookshank, F. G. : "The Mongol in our Midst." London, 1925.

Having spent five years in China, and having seen Chinese, Japanese and a few Tibetans, I do not hesitate to say that, unfortunately, this statement is entirely erroneous.

If the Chinese have no chair—they are, by the way, the only people outside Europe who have had chairs—they will squat on the ground in much the same fashion as does a negro—i.e., resting on his entire feet, his buttocks on the heels. One will observe a coolie or peasant when resting sit like this; one will see him also very often in this posture when doing some small job—e.g., making up a parcel, mending something, etc., etc. This method of squatting is perfectly natural in the Chinese male. Women who for a great part still have crippled feet, cannot do it, but those who have normal feet squat as men do.

Sitting with crossed legs was introduced by Buddhism from Indo-Aryan sources. Chinese Buddhists often do sit in the Buddha posture; the rites even prescribe that priests should die in this posture. But it is primarily foreign to the Chinese.

I have a snapshot of a Tibetan lama on the Wu-tai-shan who squats like a Chinese and is being shaved by his fellow-lama: even the zealous Tibetan priests do not seem to have forgotten the natural posture of their race, in spite of a long training!

The Japanese often sit in another way. They kneel down and then sit on their heels, the legs parallel to each other. This, however, is a ceremonial posture rather than an original habit.

The posture habitually or primarily adopted by the Mongols shows, therefore, no resemblance to that of the Orang or our own feeble-minded ones!

Another puzzling point seems to be the shape of the ear lobes. One often notices enormous ear lobes in pictures of Buddhist saints. This, Crookshank also attributes to the Chinese: "The wearing of heavy earrings by them is explicable as an attempt to promote the development of the ear lobe," thus hiding a theromorphic trait. It is true that the ear lobe is quite often somewhat poorly developed in the Chinese, but no Chinese man wears heavy earrings. Women do wear earrings, often somewhat bigger than those seen on the fairer sex in Europe, but not much so. The enormous ear lobes, too, are only seen in Buddhist pictures or images, original Chinese pictures, e.g., portraits of Kungtse, or national heroes, do not show these. This question of ear lobes, however, is only a side issue, but it shows how careful one must be in discussing things Chinese.

As further evidence, mainly in support of anthropological theories, the morphology of the brain is called in. A morphological resemblance of the convolutions of the cortex of the brain in Mongols and in Orangs is said to occur, and speculation has run wild. That the yellow race is a "distinct species,"\* and that "the yellow man and Orang have descended from one root,"† are the conclusions Kurz arrives at, and they are joyfully taken up by Crookshank, who offers the bold hypothesis of a triple origin of mankind: white race—chimpanzee, negroid race—gorilla, yellow race—orang, are his "species" and their nearest anthropoid relatives.

These ideas seem highly improbable in themselves, and we fail to see how the morphology of the brain can be made to support them. A description of the Chinese brain by the present author will be published elsewhere, but one point may be briefly touched upon here.

It seems to be beyond doubt that of all parts of the cerebral cortex the frontal lobe is that which is most characteristic for the human race. Most probably this part is connected with motor functions in their widest sense, including, perhaps—if these things can be localised at all—such qualities as spontaneity of will, concentration, etc. Now, it is interesting to note that the development of the frontal

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\* Kurz, *Zeitschr. f. Anat. u. Entwicklungsgesch.*, lxxii. 1924.

† *Ibid.*

lobe is practically the same in Chinese as in Europeans, whereas it distinctly differs from the conditions found in any of the anthropoid apes. It is only in the parieto-occipito-temporal area that racial differences are found. This area is much less developed in the Chinese, hence a more backward position of the central (Rolandic) fissure, hence a different behaviour of the interparietal sulcus and the presence of a sulcus lunatus.

The consequence one would naturally draw is that the human race developed on one line till the frontal lobe of the brain had fairly arrived at its present stage, and that all those species which show a different behaviour have branched off at an earlier stage. That certain morphological details should happen to show a close resemblance between the Chinese and the Orang may be. But comparatively few Chinese brains have been examined so far, and one should hesitate to draw far-reaching conclusions from findings which may, after all, prove to be merely accidental. The sulcus lunatus is by no means a constant feature in the Chinese brain.

Moreover, the brain as an organ of highest physiological value is, perhaps, not a very good object for studying morphological relationships.

There are striking resemblances between the Mongolian race and the state of Mongolism. But they do not seem to go deep enough to warrant the hypothesis of a true relationship between them. There are undoubtedly differences between the Europeans and the Mongols. But they do not seem to go deep enough to warrant the statement that the Mongols are a distinct species in the sense of systematic zoology.

GERHARDT VON BONIN.

## Africa, South: Archæology.

Goodwin.

**South African Archæology.** By A. J. H. Goodwin, M.A.

14

An attempt is being made in South Africa to found a new school of archæological thought. Hitherto the tendency has been to take over the European terminology, sequence, and even dating. The result has been chaotic.

Professor Radcliffe-Brown gave the writer the necessary impetus to work up the South African Museum collection at Cape Town, and to run through the various sites present there. Of these, there are some two or three hundred.

From the results found there I reached certain definite conclusions, and have been able since then to apply the knowledge acquired there, to the various collections at Kimberley, Grahamstown, and the Port Elizabeth Museums and, to a lesser extent, to the Transvaal Museum. In all cases the scheme has fitted sufficiently accurately to allow of the scheme being regarded as a "scientific generalisation."

My knowledge of stone implements was acquired at Cambridge from Mr. Miles Burkitt, and much of the terminology has been taken from his teaching.

In the examination it was found necessary to confine the preliminary survey to the better implements from each site, and to regard only conventionalised forms. Non-conventional forms occur at many sites, but only in individual specimens.

The results are broadly these:—In South Africa we are in the presence of two main periods; these have been termed the Earlier Stone Age and the Later Stone Age. The period during which South Africa was inhabited by the peoples of the Earlier Stone Age amounted to some thousands of years, and the period appears also to have ceased at a remote period, possibly 3,000 years ago, though dating is quite impossible with our present geological knowledge.

Dr. Peringuey gave a name to the main culture of the Earlier Stone Age, and his term, Stellenbosch Culture, has been retained. This consists of a normal *coup-de-poing* industry, the finished implements of each site being almond-shaped or pear-shaped, with a few oval and leaf-shaped specimens. In unfinished specimens the chipping is coarse, but in all cases the better-finished implements show a straight edge all round, and fine chipping over both faces. The delicacy of the chipping

varies with the material used. In dolorite the chipping is coarse; in shale, and especially in quartzitic sandstone, the chipping is exceptionally fine. With the boucher are found *biseaux* or basils, and discoidal artefacts rough in form.

A second culture has been termed the Victoria West culture, and new sites are rapidly being discovered. This centres round Victoria West, running north into the Free State and to De Aar and Britstown, and west to Nakob, on the S.W. African border. This also has the *coup-de-poing*, but the main implement appears to be a core, similar to the European Acheulean tortoise core, but some 8 inches or so in length. In the smaller specimens the flake removed is about 2 to 3 inches in length. The weathering is excessive in most cases, and it has so far been difficult to say with any certainty whether the core or the flake removed was the desired implement. No definitely worked flakes are known in this industry.

The last industry in the Earlier Stone Age is the Fauresmith industry. This consists of a pseudo-*coup-de-poing* industry. A flake, some 6 inches in length, is trimmed completely over one face, and, when this is finished, the cleavage face is worked in a similar way. The *coups-de-poing* so made are far finer than even the best Stellenbosch types. It is quite possible that this, too, was the beginning of a Levallois technique, but no cores have as yet been found. Twisted or screwed specimens appear in quite a number of instances. This industry is apparently fairly local.

Following upon the Earlier Stone Age, and probably overlapping into it, comes the Later Stone Age. The first industry to appear is the Still Bay industry, which covers most of the eastern part of the Union, and extends into the Free State, and to Okahandja in South-West Africa. This is a culture a little similar to the Solutrean of Europe, a pressure technique producing a lanceolate implement usually 2 inches in length; the outer face is slightly more convex than the cleavage face, which is worked over almost the whole of its surface. A few delicate tanged implements and a few with serrated edges also appear. A fine specimen from the Cape is illustrated in Neville Jones's "Stone Ages in Rhodesia" (Oxford, 1926). The material used is a surface quartzite or a shale. No human remains associated.

The Still Bay was followed by two probably contemporaneous industries which extend into modern times. These have been termed the Smithfield and Wilton cultures respectively. The former may be the earlier, and is usually in indurated shale. The latter is normally in agates, surface quartzites, quartz crystals and similar fine-grained stones. This fact may possibly be a clue to their dissimilarity.

The Smithfield culture consists in the main of the duck-bill shaped end-scraper. With these have been associated (mainly by C. van Riet Lowe) the circular scraper, thumbnail scrapers, horse-shoe scrapers, trimmed points (of Chatelperron type), hand-picks or pierced stone borers, bored stones, ostrich eggshell beads, stone rings (polished "armlets") and, finally, pottery and human remains. One other implement can now be definitely associated with this culture; this I have termed the "axedge," and it is illustrated in my handbook to the South African Museum Collection, Cape Town, 1926. Apart from this implement, the industry is very similar to the Lower Capsian or Lower Aurignacian. The human remains are of the general type known as "Bushman."

The Wilton industry is very similar; the chief implements are the crescent (lunate), the end-scraper, horse-shoes, thumbnails, pottery, similar to the Smithfield, bone "awls" (actually arrow-heads and link-shafts); skeletons of the same general type as the Wilton specimens, with similar fully-flexed burial "palettes" of slate are also found, and the culture is definitely associable with the cave paintings. Geometrical implements also appear, and, in all, the culture is identical with the last phases of the Capsian of Spain and North Africa, the implements all being of the "pygmy" variety.

While there is no proof that the Smithfield industry is at all modern, the Wilton goes up to 1870 at Kimberley (where plate glass has been used), and I discovered a skeleton at Fish Hoek buried on a bed of leaves which were still recognisable, and two fragments of twisted iron. Our most definite association of the Wilton culture with the paintings was found some years ago by Mr. Drury, of the South African Museum, in the Coldstream Cave, where he discovered a painting on a boulder which had been used as a tombstone, and had been placed over the skeleton below. Mr. Fitzsimons, of Port Elizabeth, found a similar specimen, but it was not so definitely associated. Up till the former find the association rested upon the continual discovery of the necessary pigments in the occupational layers.

This scheme has been discussed and finally adopted as a working basis by the South African Association for the Advancement of Science. I hope to publish the entire results of my researches during the coming year.

A. J. H. GOODWIN.

## Papua: Religion.

Lyons.

### A Sacrificial Altar—Papua. By A. P. Lyons.

Koiaria village, where the altar shown in the accompanying photographs stood until recently, is situated on an island of the same name within the Engineer Group, which is located at the eastern end of Papua. This village, though now insignificant, was both the capital and centre of culture for the group at, and before, the coming of the white man to New Guinea.

The very little that is known about the altar is limited to two old men and one old woman who, as children, saw it used. It is said to have been made by a man named Eawalupi, who appears to have been a chieftain. These old folk admit, and it is otherwise well known, that the natives of the Engineer Group were cannibals. From their description, it seems that human beings of both sexes were taken captive in war.

They were brought to Koiaria village, where they were killed. The bodies were placed on the altar, and then cut up into small pieces by Eawalupi in the presence of his warriors and their women. While so doing he observed some sort of ceremonial, accompanied by ritual, part of which was sung.

He then invited each warrior by name to take a piece of the flesh. The warrior approached the altar dancing and singing, thrust his spear into his portion, and then removed it from the altar for cooking and eating.

The table post or support shown in Fig. 1 is called tai-ea-kai, which means "men I eat," and the top or plate shown in Fig. 2 is called gaeba. The whole is called tai-ea-kai. Though made out of a durable hard wood known locally as ulabo, both parts of the altar are much in decay, indicating that they are very old.



FIG. 2.



FIG. 1.



FIG. 3.

When I first saw it, a few months ago, the tai-ea-kai post stood upright, 8 feet out of the ground, at the village of Koiaria. The surmounting head of a man faced the sea and the east. The gaeba was detached.

The tai-ea-kai represents a trinity of the full figures (in relief) of a man and woman, and the head of a man. The woman is below, but almost directly in line with the head (see Fig. 3). The breasts of the woman are well defined, which is unique so far as my knowledge of Papuan carvings goes. Who the figures and head represent is not known.

The greatest circumference of the tai-ea-kai is  $68\frac{1}{2}$  inches. The figures of the woman and man measure 41 and 40 inches long respectively. The gaeba, or table-top, measures  $68\frac{1}{2}$  inches long by 57 inches broad.

Neither natives nor old European residents of the Engineer Group and other eastern districts of Papua know or have heard of another altar such as is herein described.

A. P. LYONS.

## Obituary.

Fallaize.

**Maurice Delafosse. December 20th, 1870—November 13th, 1926.**

We regret to record the death of M. M. Delafosse, the distinguished ethnologist and authority on African languages, which took place at Paris on 13th November last, in his fifty-sixth year.

Maurice Delafosse was born at Sancergues (Cher) on 20th December, 1870. After graduating at the École des Langues Orientales Vivantes in 1894, he joined the Government Service in West Africa, in which he had a distinguished career as an administrator. He was a member of the Anglo-French Boundary Commission of the Ivory Coast-Sudan-Gold Coast Frontiers in 1903, and, after holding a number of important posts, became Governor of Ubangwe-Chari in 1918. Shortly afterwards, he retired owing to his health, and devoted himself to linguistic and ethnographical studies, to which he had already paid considerable attention. He became a professor at the École Coloniale, and lectured on Soudanese Languages at the École des Langues Orientales Vivantes. He was also appointed Membre du Conseil Supérieur des Colonies and Membre Effectif of the International Colonial Institute at Brussels, Member of the Commission de l'Esclavage at Geneva and Director of the Institut International pour l'Étude des Langues et Civilisations Africaines. He was a frequent contributor to *L'Anthropologie*, *La Revue d'Ethnographie*, and other specialist periodicals, and was the author of a large number of books dealing with African languages and peoples which were widely recognised as authoritative. He was greatly interested in the recently-formed International Institute of African Culture and Languages, of which he became joint director. His death at a comparatively early age was due to ill health contracted during his residence in Africa, and is a loss to ethnographical and linguistic studies which will long be deplored.

**Stephen Meredyth Edwardes. Died January 1st, 1927.**

The premature death from bronchial pneumonia of Mr. S. M. Edwardes, C.V.O., C.S.I., at the age of 54, which took place on 1st January at Fielden, near Boxmoor, is a loss to the study of Indian history and archaeology deeply to be deplored. Mr. Edwardes was educated at Eton and at Christ Church. In 1894

he passed into the Indian Civil Service, and was posted to the Bombay Presidency. He rapidly acquired an intimate acquaintance with conditions among the native population of the city and a profound knowledge of its history, on which he came to be recognised as the foremost authority. He was responsible for the census volume of 1901; compiled additional volumes of the *Gazetteer* between 1906 and 1910; and was the author of "The Rise of Bombay" and "Byways of Bombay." He was appointed Commissioner of Police in Bombay in 1910. On his retirement he gave up the greater part of his time to research, but he became Secretary to the Indo-British Association, and represented India at the General Conference on Traffic in Women and Children in 1921. In 1923 he became joint-Editor with Sir Richard Temple and Anantha Krishna Aiyar of the *Indian Antiquary*. He revised Grant Duff's "History of the Mahrattas" and the fourth edition of Vincent Smith's "Early History of India," and published a valuable study of crime in India. He was engaged in a comprehensive study of the Mogul period in collaboration with Professor Garrett of Lahore, and had already published a monograph on "Babur: Diarist and Despot." In 1926 he was selected to succeed Miss Ella Sykes as Secretary of the Royal Asiatic Society. E. N. FALLAIZE.

## REVIEWS.

### Prehistory.

*Our Early Ancestors: an introductory Study of Mesolithic, Neolithic and Copper Age Cultures in Europe and Adjacent Regions.* By M. C. Burkitt, M.A., F.S.A., F.G.S. Cambridge: University Press. 1926. Pp. xii + 243. Price 7s. 6d.

There can be no doubt that Western Europe entered a new phase of history when her inhabitants learned how a constant supply of food could be attained by tilling the ground and rearing cattle. At what date this knowledge was carried Westwards and how many centuries passed before the earliest knowledge of the use of metals followed, we do not know; but most of us who have weighed the scanty evidence relating to these prehistoric events will agree with Mr. Burkitt that the coming of Agriculture and of the earliest megalithic monuments were almost, if not altogether, simultaneous events. Very rightly, we think, Mr. Burkitt regards these events as marking the beginning of the first phase of our modern civilisation, to which phase or period he would restrict the name Neolithic. But as to what date agriculture and megalithic monuments made their first appearance in England he hazards no guess. Indeed, it is a striking but understandable defect in this most welcome book that its author does nowhere offer even an approximate date for any of the numerous and important events discussed in his pages. Dates are the essentials of even prehistory; we cannot hope to reach the truth at one step, but we shall never even approach our aim unless we are willing to risk an opinion founded on even the scantiest of evidence. No one, I think,

### Burkitt.

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will be inclined to suppose that agriculture in its crudest form was practised in England, or megaliths built, before the middle of the 3rd millenium B.C., and most will agree that a knowledge of metals found its way to our shore at or soon after the beginning of the 2nd millenium. If we assume these tentative dates as approximations to the truth, as there is reason for doing, it will be seen that the Neolithic period, as Mr. Burkitt proposes to define it, will cover only a comparatively short period of the history of Western Europe—some 500 years.

Between the Neolithic culture as thus defined and the last of the Palaeolithic cultures of Western Europe, there lies a long, confused and dark period of prehistory. To the cultures of this period Mr. Burkitt proposes to restrict the name *Mesolithic*. The chief merit of his present work lies in the contributions made to the cultures of this period. Mr. Burkitt recognises six mesolithic cultures in Western Europe: "Maglemosean" and "Midden" forms in the Baltic area—the one preceding the other; "Azilian" and "Campignian" centred in France, the former being the older; the "Asturian" in Northern Spain, while more widely distributed and more important than all of these is the Tardenoisian culture—akin to the Capsian of North Africa and closely related to the terminal phase of the Aurignacian of south Europe. The period at which these cultures prevailed in Western Europe may also be spoken of as Mesolithic. Here, again, Mr. Burkitt avoids giving, in terms of years, the approximate date at which the Mesolithic period began; he simply states

that it began when the Magdalenian, the last of the palæolithic cultures in Europe, came to an end. On the geological data now available it is difficult to believe that the Magdalenian culture and Arctic conditions in Western Europe came down so far as the eighth millenium B.C. It is not unscientific to hazard a date as to when such important changes in climate and culture took place; it is unscientific not to face the problem and offer such a solution as our scanty evidence may justify. If we take 8000 B.C. as the best approximation now available for the beginning of the Mesolithic period and 2500 B.C. as marking its end, then it is clear that the Mesolithic period in Western Europe will absorb almost the whole of that to which we have hitherto given the name Neolithic. It is certainly difficult to suppose that the cultures named by Mr. Burkitt as Mesolithic can represent the total human record of Western Europe for a period of over 5000 years. With the exception of the human remains found at Offnet and in the Mendips, we know nothing of the Western Europeans during this long period. It is only when we seek to frame a chronological system that we realise the poverty of our data and the magnitude of the problems which we still have to solve. One way out of the difficulty—one which I think Prof. Elliot Smith would willingly take—is to suppose that climatic conditions alter much more quickly than we have hitherto supposed, that the geological calculations as to the retreat of the ice-sheet are fallacious, and that the period of Magdalenian culture, in place of being some 10,000 or 12,000 years distant from our time, is only about half of these amounts. My personal opinion is that in the meantime it is safer to rely on geological data than on our present scanty archaeological knowledge in framing a calendar for Mr. Burkitt's Mesolithic period.

Mr. Burkitt has rendered a real service to all who are interested in the more recent cultures of Western Europe. No one will read the evidence presented in "Our Early Ancestors" without being impressed with the fact that since palæolithic times culture has filtered into Europe by two great passages—the Eastern or Central and the Southern or Mediterranean—and that both pathways have always led to Britain. I believe it was Mr. H. J. E. Peake who first made known to British archaeologists the importance of the Central route in the spread of culture westwards; Mr. V. Gordon Childe has, in more recent years, demonstrated the

reality of this cultural highway. The Southern or Mediterranean route has always been acknowledged. To which of these routes Britain owes most it is hard to say, but on the evidence, as summarised by Mr. Burkitt, we must be prepared to give the Central route a much more important place than has hitherto been done. It is quite twenty years since British archaeologists recognised that England, like Europe, had her two cultural gateways, the Eastern and the Western. Prof. T. H. Bryce was, I believe, the first to give a clear expression of the importance of distinguishing these gateways—the one reached by crossing the North Sea, the other by passing up the Irish Sea. But it is only recently that we have recognised that, throughout the period covered by Mr. Burkitt's book, it was the Central cultural drift which entered by our Eastern gateway and the Mediterranean drift by our Western gateway. It does seem probable that the division of the English people into a fairer Eastern moiety and a darker Western was established long before the coming of the Saxons.

To men like the reviewer, who are interested in Archaeology only indirectly, Mr. Burkitt has performed a valuable service by writing this book. In only a secondary matter does he fall short of what might be expected of him. This relates to his treatment of megalithic monuments. It may be, as he is inclined to suppose, that such monuments did undergo the initial stages of their evolution in Spain but, even if we grant this, we have to explain how they came to share their many significant resemblances with the ancient tombs of Egypt.

A. KEITH.

Psychology.

Malinowski.

*Myth in Primitive Psychology.* By B. Malinowski, Ph.D., D.Sc. London. 1926. Kegan Paul, Trench, Trubner & Co., Ltd. Pp. 128. Price 2s. 6d.

Within the modest compass of 128 small pages Dr. Malinowski has produced a useful and attractive little book, which constitutes a valuable addition to the series of "Psyche Miniatures," to which it belongs.

Wisely enough (in view of the necessarily small space at his disposal), he does not attempt to cover the whole field to which the title points, but confines himself for the most part to a study of one method and one particular set of data. After a brief survey of other possible methods of approach he definitely adopts the standpoint of the field anthropologist and deals only with a series of myths collected or investigated by himself in the Trobriand Islands; these

myths being treated in successive chapters under the headings of "Myths of Origin," "Myths of Death and the Recurrent Cycle of Life," and "Myths of Magic." In the course of this treatment there are developed two main theses, which constitute the central guiding thoughts of the book.

The first of these is that a proper understanding of myths can only be obtained by studying them in relation to the practice, belief and ritual of the people among whom they are current; only so will the real psychological and sociological function of myths become apparent. For this purpose it is not even sufficient that myths should be investigated in the country of their origin; even the field anthropologist "must relinquish his comfortable position in the long chair on the verandah . . . he must go out into the villages and see the natives at work . . . information must come to him full-flavoured from his own observations of native life." Dr. Malinowski warns us that "such open air anthropology, as opposed to hearsay note-taking, is hard work," but, he adds, "it is also great fun." With regard to the general soundness of this position there can be little dispute. Had such precautions been more frequently observed, many erroneous or misleading conclusions would have been avoided and the science of myth would to-day have been on a much surer footing than is actually the case. At the same time this insistence on the observation of myth as actually functioning requires (as Dr. Malinowski himself would doubtless admit) to be supplemented by a further process of comparison, collation and interpretation—work that can often be more profitably undertaken in the study than in the field, though here, too, the field anthropologist will, other things equal, have a great advantage over the untravelled or superficial observer, who only knows myths in their "flat existence on paper, not in the three-dimensional reality of full life."

The second main contention is that the primary function of myth is not, as certain influential theorists have maintained, explanatory or historical, but rather conative; in the sense that myth is intimately concerned with the everyday emotional life of a people, with their intensest and most fundamental hopes and fears. There can be no doubt that the psychologist will be in cordial agreement with Dr. Malinowski on this point, and this in spite of the fact that in his introductory chapter Dr. Malinowski is scarcely fair to the psychologist. In this chapter he asserts that the ætiological view of myth is "all that modern science at its best has to say upon the subject." Such

a statement is emphatically untrue of psychology, and more especially of that branch of psychology which has of recent years most concerned itself with the nature and function of myth; I refer, of course, to psycho-analysis. Psycho-analytic interpretations, undertaken on the basis of comparative research covering a wide range of mental and social phenomena, have, on the contrary, given rise to much the same general view as that to which Dr. Malinowski has himself arrived as a result of his field work, i.e., that myth is connected with the strongest and most basic human desires. As to how far this general correspondence extends to details, the present volume scarcely enables us to judge. There are indeed a few most interesting hints (especially on pp. 103-106) with regard to Dr. Malinowski's views on the more intimate psychological function of myth, but they are too brief and fragmentary to enable us to apply them satisfactorily to concrete cases. It is much to be hoped that in some later and larger work Dr. Malinowski will give a fuller and more detailed treatment of the psychological aspects of myth.

The book is dedicated to Sir James Frazer and is throughout inspired by enthusiasm for the outlook and methods of the author of "The Golden Bough." J. C. F.

**Mediterranean: Archæology. Macurdy.**

*Troy and Paeonia, with Glimpses of ancient Balkan History and Religion.*

By Grace Harriet Macurdy, Professor of Greek in Vassar College. New York, 1925. 8vo. Price, 20s. net.

After an orgy of scepticism, there is a welcome tendency now among students of things Homeric to suppose both that the Homeric poems normally mean what they say; and that what they say is a glimpse into a real world very different from that of Hellenic times, and approximately identifiable with the state of things around the Ægean in about the traditional date of the Trojan War; that is to say, in the late thirteenth and early twelfth centuries B.C. Into the reasons for this belief it is not here necessary to go. What is, however, important to remember is that if a hypothesis of this kind is a true one, it will be found to throw light upon other data than those which suggested it; and that this process of verification is an essential stage in the establishment of the hypothesis itself. The value of this essay, then, is such an attempt at verification; indeed, as a group of such attempts, in respect of Homeric allusions to peoples and persons belonging to the neighbourhood of Troy itself, and to the European allies of its

defenders. Why, for example, are Poseidon and Apollo the gods to whom the building of its great walls was ascribed? What is the significance of the distinguished part played by the Lycians in its defence? Why are the Dardanians described as "close-fighting" warriors, and the Trojans themselves as "horse-breakers"? And what, if any, is the explanation of the numerous Greek names borne by Trojans in the traditional narratives? The explanation proposed is the hypothesis already current, that the Homeric Troy, and the political régime of which it was the centre, resulted from the intrusion into western Asia Minor of a group of peoples from south-eastern Europe, of whom traces are recognizable in the region whence they came, and whose customs and beliefs associate them with other peoples, some of whom remained there long, while others spread south-westwards into peninsular Greece.

Similarly, comparison between the Homeric Paeonians, whose home was bounded westward by the Axios river (the Vardar), and the Paeonians of Herodotus and later Greek writers, is found to throw fresh light on the complex ethnology of Macedonia and Thrace, and to confirm the same hypothesis from another side. In particular, the connection of the Paeonian name with that of Apollo, the "Healer," and the peony-root with its valuable styptic property, brings us back to the question first raised as to the functions both of Apollo and of Poseidon, and the reasons for an association of these two deities, which was still present for example to the mind of the designer of the grouped deities in the frieze of the Parthenon.

Thus far, "Troy and Paeonia" hold the argument together with a fairly continuous thread of ethnology interpreted from tradition and folklore, always ingeniously, even if the argument occasionally springs over-lightly from one fairly firm stepping stone to another. In the latter part of the book, the pace quickens, and the reader is led a dance more mazy, in which Artemis, Leto, Paeonian spinsters, sun-cocks, amber and other "averters of evil," the Hyperboreans, and the Muses, are the principal figures. Ethnologically, the upshot is that Dr. Macurdy finds traces of other northern traditions and practices so widely distributed in peninsular Greece as to justify serious consideration of the numerous local legends about "Thracians" and other immigrants from beyond the north Aegean.

And yet—can we be quite sure that what the logicians used to call the "plurality of causes" has been completely

excluded? Do we know enough, that is, about the religious and magical notions of such parts of Greece as were *not* pervaded by northerners, to be justified in saying that these similarities of effect demonstrate identity of cause? After surfeit of comparisons, analogies, equations of similars—and of opposites, like the ingenious conception of a "night sun" who is really shining in Hades though it is quite dark here—*surgit amari aliquid*: there comes an uneasy feeling that there "must be a catch somewhere." But to detect where that catch is, one must know one's Homer, and a good deal besides, as well as Dr. Macurdy does; and be prepared, probably, to go a long way with her, on this adventurous quest, before parting company at a real *impasse*. Even where one hesitates to agree, it is worth while to read and ponder.

J. L. MYRES.

#### Linguistics.

Schmidt.

*Die Sprachfamilien und Sprachenkreise der Erde.* Von P. W. Schmidt, **20** S.V.D. Mit einem Atlas von 14 Karten in Lithographie. Heidelberg, 1926. Carl Winter's Universitätsbuchhandlung. (Kulturgeschichtliche Bibliothek herausgegeben von W. Foy. 1 Reihe: Ethnologische Bibliothek).

In this book and the accompanying atlas, Father Schmidt gives an account of the present position of Linguistic Study in regard to the classification of the Languages of the Earth, and also of the relation between, various linguistic factors and the distribution of culture. It comes thus into the view of both Linguist and Ethnographer.

The introduction briefly sketches the main problems of linguistics. Speech is regarded as the essential human faculty, and the *homo alalus* of Haeckel is a "phantasy" which, according to Father Schmidt, might well make any people dumb with astonishment and indignation when they learn what "blühender Evolutionismus" has attributed to them. The small number of interjections and the ability to connect and relate statements are characteristic of all human speech. The languages of primitive peoples are said to be richer in sounds, grammatical forms and vocabulary than those of a more advanced type. The alleged absence of an original tongue among pygmy peoples, and the alleged dumbness of prehistoric man are discussed in detail and rejected. Various theories from Plato to Wundt on the origin of languages are similarly dealt with, and it is suggested that none of them really explain *how* language originated. A sketch is also given of theories as to

progressive stages in speech—Monosyllabism, Agglutination and Inflection—none of which is permanent or restricted to any single language.

A historical account is given of the progress of Comparative Philology and of its relation to Psychology and Phonetics.

In the first main section of the book the various linguistic families of each continent are introduced by chronological accounts of the principal books in which classification has been established, and of the authors to whom the classification is due. These are followed by lists of the principal members of each family. No references are given to individual languages, as these would be included in the classificatory works named. The geographical positions of the languages are not stated in the text, but are shown approximately in the accompanying Sprach-Atlas. Certain subsidiary matters relating to the connection of one family with another are briefly sketched. Among these are the separation of the Dard languages from the Indo-European, the grouping of the Ural-Altaic and the Hamito-Semitic languages and their relations with Indo-European, and also such problems as those presented by the Sudan languages, and the possible relations of the Dravidian to the Papuan and Australian. The wilder fancies of the Aryan-Maori, the Oceanic-Semite, and the Indian-Polynesian do not appear as worthy of record, but works are mentioned connecting Andaman with Papuan and Australian, and (in the appendix), Australian and Melanesian with American.

The second part of Father Schmidt's book deals with the relation of the Distribution of Languages to the distribution of culture. Taking the three linguistic phenomena of Phonology, Grammar and Syntax he examines the distribution of certain broad features of each among the languages of the world. In phonology the most important factors are the occurrence of the abnormal vowels *ö* and *ü*, the development of differences between the voiced and voiceless, and between the stopped and fricative consonants, and the nature of the final and initial consonants. A summary account is given of the distribution of these factors in the linguistic families. In grammar the features dealt with are the expression of number in the pronouns and nouns, the distribution of Dual and Trial forms, the occurrence of inclusive and exclusive personal forms in the first person, the variety and distribution of the methods of classifying and of expressing gender, grammatical or sexual, and the distribution of numeral systems. In syntax the position of the genitive before or after the governing noun is regarded by Father

Schmidt as of much importance and he discusses it in relation to definite culture-complexes. The earlier cultures (boomerang, mother-right and nomad) mainly use the preceding genitive, and with this corresponds the use of a preceding pronominal subject to the verb. The position of the adjective, and the accusative construction are also dealt with.

These considerations suggest the division of languages into several regional groups distinguished by their stages of development into:—1. Primitive; 2. Primary; 3. Secondary; and 4. Tertiary Areas.

In his final section Father Schmidt compares the linguistic areas elaborated in the preceding chapters with the cultural aspect of the same regions. He finds that primitive language corresponds to primitive culture (as e.g., the distinction of the exclusive and inclusive person with local exogamy). Also primary languages agree with primary culture (totemism, mother right, nomad herders).

Father Schmidt's book suggests a closer co-ordination of the linguistic with the cultural branches of Ethnology. It will be useful both as a guide to the collective aspect of the languages of the earth, and as a clearly stated summary of linguistic facts which have ethnological significance. It fills a long existing gap in Ethnolinguistic Study.

The coloured Atlas illustrates both divisions of the work. Maps 1-6 show the distribution of languages in the continents; Map 7 the distribution of Cultural Areas, and Maps 8-14 the distribution of various linguistic factors. SIDNEY H. RAY.

Solomon Islands: Folklore. Wheeler.

*Mono-Alu Folklore, Bougainville Straits, Western Solomon Islands.* 21 By Gerald Camden Wheeler, B.A. (Lond.) London. 1926. xv + 396 pp.

This book contains a collection of Folk tales and Songs made in Treasury Island, Bougainville Straits by Mr. G. C. Wheeler during his visit to the Solomon Islands in 1908-9 with the late Dr. W. H. R. Rivers and Mr. A. M. Hocart. Most of the tales were dictated in the Mono language and Mr. Wheeler has given the Melanesian text. A few stories were also obtained in pidgin-English.

Although the islanders of Bougainville Straits are Melanesian there appears to be a good deal of intercourse with the Papuan natives of the south-east of Bougainville Islands and especially with the Buim people. Mr. Wheeler notes a good deal of similarity in the folklore and a predominance of Buim songs in Mono.

The stories cover a wide range and are classified with notes by Mr. Wheeler. In the main groups dealing with the origins of natural objects and culture elements a few parallels are found with Melanesian stories elsewhere. There are the usual accounts of women not of human origin, snakes, cannibals, ogres and supernatural beings. The character of some of the sexual stories suggest a Papuan rather than a Melanesian source. A good many of the Mono tales have certainly come from Buim, and in his comparative notes Mr. Wheeler suggests a mingling in this region of Melanesian and Papuan folklore. The difficulty lies in distinguishing the separate Papuan and Melanesian factors. This may perhaps arise from the lack of correlation between Indonesian and Melanesian folklore, for if the Melanesians are a mixture of primitive Papuans with immigrants from the Western islands we should expect a part at least of their folklore to have relations with that of Indonesia. As in other collections of Melanesian folk tales we have in Mr. Wheeler's work no trace of the elaborate mythology of Polynesia. An important feature of the book is the preservation of the Mono texts. They are accompanied by a Mono-English glossary and copious grammatical notes. The book will thus be of value to the linguist as well as to the folklorist.

S. H. R.

sketched by Åberg. The minute and painstaking analysis presented in the present work, richly illustrated as it is, will therefore appeal primarily to the specialist only. Yet a detailed examination, even of an arbitrarily delimited region, cannot fail to reveal interesting facts when undertaken by a talented writer like Dr. Sprockhoff. The very multiplicity of the material has here been an embarrassment, and in the dense clusters of trees we have to peer about to discover the wood. The main new vistas opened up, as compared with the pictures given by Kossinna, Åberg and Menghin, are those which point to Saxo-Thuringia and Silesia. The former area stands out as an increasingly independent centre which exercised a profound influence upon the originally "Nordic culture" of Brandenburg. Thence, and not immediately from Denmark, came the corded ware, the cists of stone slabs and the globular amphoræ whose independence of the amphoræ of the Danish dolmens is at last vindicated against the assumptions of Schumann and Kossinna. Even Kossinna's "South Group" of funnel-necked beakers is dissociated from the Scandinavian series and attached by preference to the Michelsburg culture of South Germany and Bohemia!

No less striking is the part assigned to the Danubian influences transmitted across Silesia. Even the Nosswitz pottery of Seger which to Central European archaeologists has always been regarded as typically "Nordic," is pronounced an alien here on Nordic soil. The insistence on the synchronism between the German cists and the Scandinavian passage-graves again deserves notice, though the idea is not new.

These and other features make this work, which at the same time is a veritable corpus of North German pottery, a really valuable contribution to our knowledge of the New Stone Age.

V. G. C.

Germany: Archæology. Sprockhoff.

*Die Kulturen der jüngeren Steinzeit in der Mark Brandenburg.* By Ernst Sprockhoff. Berlin: Walter de Gruyter, 1926. Pp. 183 + 58 plates.

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The area surveyed in this book is not a cultural unity; many of the most important monuments embraced within it have been ruined and effaced; well-studied closed finds are rare; the general outlines of cultural sequences and relationships have already been brilliantly

## CORRESPONDENCE.

Australia.

Stannus.

**A Surgical Operation as performed by the Boonarra Tribe, Northern Australia.**

To the Editor of MAN.

23

SIR,—In reading the article by Mr. Michael Terry (MAN, XXVI, 129) describing the methods adopted by members of the Boonarra tribe for obtaining blood from the arm, one is struck by the fact that he states that the artery is opened, whereas the use of a proximal ligature, the clenching

of the hand, and the fact that the incision is made "where the artery (*sic*) is only just beneath the skin" suggests with some certainty that it is the vein which is used. Again, after the operation is finished the wound is said to have been sealed by the stone used for making the incision over the cut, bound in place by the ligature. Such an arrangement would, of course, stop the bleeding from a vein, but not from an artery. This point would appear to need clearing up, as it might have some

significance. There is also an error of spelling I venture to mention also—the word *bicep* is used instead of *biceps*.

I am, etc.,

HUGH S. STANNUS.

Ethnography.

Torday.

### Sex Ratios and Cultural Contact.

To the Editor of MAN.

SIR,—Captain Pitt Rivers, having adopted Düring's theory (with which Westermarck\* has made us familiar more than thirty years ago) that the sex ratio in births is affected by social welfare, ought to have carried it to its logical conclusion, which points as clearly to an increase in female births when the contact with civilisation is beneficial, as it does to a decrease when it is harmful. Even civilisation must receive the credit which it, now and then, deserves and when we find discontent associated with overpopulation we ought to admit that we are faced with the effect and not the cause.

The investigation of the methods by which nature works the increase and decrease of races is of some interest, but it would be far more useful to suggest definite measures by which the decline of vanishing races might be prevented. Anthropology alone can do this, but if it wants to demonstrate its practical value, it must not content itself with generalisations which are more of the domain of the politician than of the man of science.

Yours faithfully,

E. TORDAY.

Britain: Archaeology.

Engleheart.

### Stonehenge — concerning the Sarsens.

To the Editor of MAN.

SIR,—Dr. R. C. C. Clay, in the last paragraph of this discussion in MAN,

1927, 4, asks a pertinent question: "What proof is there that the Stonehenge stones were made from tabular and not from irregular blocks?" It is my belief—and I have studied the Stonehenge structure very closely for well over forty years—that the sarsens were tabular before being built into Stonehenge, but very roughly and irregularly so, and that they were *dressed* to their present tabularity. The remaining stones of Avebury seem to support this contention. Mr. Goddard says they are tabular; Mr. Stone says they are not. The truth lies midway. The Avebury sarsens are tabular, but only roughly and irregularly so in comparison with the Stonehenge stones, which were probably much like them and mostly thicker in proportion to width before being dressed. The more prominent irregularities may well have been hacked off *in situ*, for lightness in transport, and the further thinning done at Stonehenge by the ridge and furrow method which is still visible on at least one of the fallen stones. It would, no doubt, take a long time to reduce a thick block to the required thinness, but many analogies prove that this did not deter the prehistoric worker.

An unprovable assumption which fits a theory to a nicety is always to be distrusted. Mr. Stone's conjecture of a small bed of tabular sarsen on the spot and exactly sufficient for the Stonehenge builders, with nothing over, incurs the same incredulity, especially as it is the only invention that can counter Mr. Goddard's crushing argument of the virtual non-existence of sarsen stone in South Wilts.

Yours faithfully,

GEORGE ENGLEHEART.

## ANTHROPOLOGICAL NOTES.

The Institute has for disposal Fellows a certain number of duplicate reprints. By application to the Librarian Fellows desirous of purchasing these may obtain lists covering the subjects in which they are interested, as follows: Physical anthropology and fossil men, 109; South and Central America, 78; Australia and Oceania, 76; Africa, 66; Asia, 63; Western Europe, 50; Central and East

Europe, 32; Rest of Europe, 26. Sociology and Material Culture, 9 items.

The Council of the Royal Anthropological Institute has awarded two Rivers Memorial Medals for anthropological work in the field for the year 1926, one to Professor Edward Westermarck in recognition of his investigations in the religion and folklore of Morocco, and one to Dr. Alfred P.

\* "History of Human Marriage," 1st ed., p. 466 *et seq.*

Maudslay in recognition of his archaeological explorations in Central America.

An expedition to investigate the physical and social anthropology of the Galla of the southern frontier of Abyssinia is being organised by Mr. J. H. P. Driberg, who will act as leader, and will be accompanied by Dr. Beven. In addition to the anthropological work, it is proposed to make certain investigations in the zoology of the country. Economic plants, as well as plants and drugs used by the natives for medical and magical purposes, will be collected.

The expedition will be carried out under the auspices of the Royal Anthropological Institute, and it has the support of the Royal Society, which has contributed £25 towards the cost. Further subscriptions towards the cost are invited. Should funds allow, three years will be spent in investigation, of which the first eighteen months will be occupied in visiting the little-known small nomad tribes of the Kenya frontier and south-western Sudan, including that important group, the Turkana, before proceeding to the Galla country, the main objective. The expedition will leave this country in April next, if the amount of subscriptions in hand by that date is adequate. As the area to be visited is little known, and the information which the expedition will obtain will certainly be of great value in the light it may throw upon the problems of African ethnology, the Council of the Institute strongly supports the appeal for financial assistance which is made by the promoters of the expedition. Subscriptions may be sent to Professor C. G. Seligman, F.R.S., c/o The Royal Anthropological Institute.

*Anthropology in Australia.*—The first department of Anthropology in Australia has recently been established in Sydney University. The establishment of such a department was urged upon the Commonwealth of Australia by the Pan-Pacific Science Congress of 1923, and the matter was then taken up by the Australian National Research Council. The Commonwealth Government agreed to provide the necessary funds early in 1924, but later, on the advice of Col. John Ainsworth, who had been lent by the British Government to advise the Commonwealth on the problem of dealing with native peoples, rescinded their former resolution and decided to do nothing in the matter.

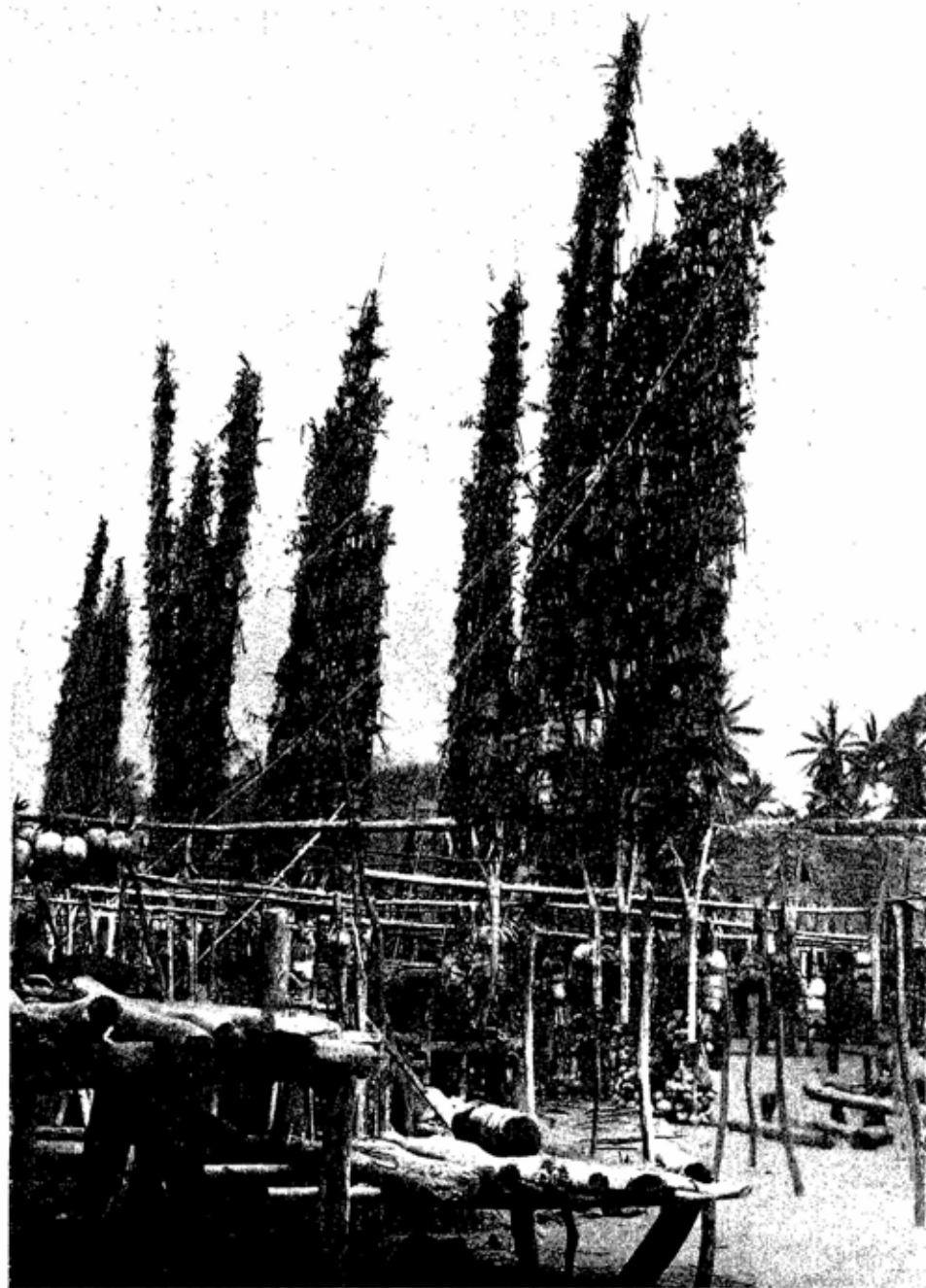
Thanks to the efforts of Professor Elliot Smith, however, they were persuaded to change their minds once more, and in September, 1924, the Commonwealth Government agreed to grant a sum of £1,000 per annum if the State Governments would provide the remainder of the money necessary, namely, £1,500. All the States agreed to do this, so that the department is now established with an endowment of £2,500 a year. Professor A. R. Radcliffe-Brown has been appointed to the new Chair, and took up his duties in Sydney at the beginning of July, 1926.

For the degree of B.A. two courses in anthropology are provided, the first in general anthropology and ethnology for second-year students, and the other in social anthropology for third-year students. Provision is also made for a diploma in anthropology requiring one year's post-graduate work. The standard of the work for the diploma will be equal to that required for distinction in the two B.A. courses together. Students who have taken anthropology for the B.A. degree and have obtained distinction may proceed to a M.A. degree in anthropology.

Special arrangements are being made whereby cadets who are entering the administration of the Mandated Territory of New Guinea will attend an intensive course of anthropology at Sydney, the course being the same as that provided for the diploma. Additional arrangements are being made for a short intensive course of ten or twelve weeks for the benefit of officials in New Guinea and Papua, missionaries and missionary students and others interested in anthropology, who are not able to attend the University for a year.

The Rockefeller Foundation has generously offered to co-operate in the work of anthropology in Australasia and to provide funds for anthropological research equal in amount to sums received for anthropology from other sources up to a limit of \$20,000 per annum. The expenditure of these funds is to be under the control of the Australian National Research Council. The Council has appointed a Committee on Anthropological Research (Chairman: Professor A. R. Radcliffe-Brown, University of Sydney), and plans have been made for research in various branches of anthropology during the year 1927.





PREPARATION OF KALO VILLAGE (HOOD PENINSULA) FOR "TABU" FEAST.

## ORIGINAL ARTICLES.

With Plate C.

New Guinea: Religion.

Seligman.

**Rest and Work Periods of the Sinaugolo (Rigo District, British New Guinea).** By C. G. Seligman, M.D., F.R.S. With Plate C.

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Among the Sinaugolo *dubu* could be built, and their great feast the *tabu* celebrated, only during recurring periods called *Kaba*. The period between two *kaba* is known as *dauka*, and matters appear to have been so arranged that a *dauka* period recurred every second or third year, and lasted perhaps a twelvemonth.

During the *dauka* the drum is *veaga*, or as the Motu would say is *helaga*, and is not sounded, nor are the customary small feasts held, the only feasts celebrated being those called *dauka* which accompany the payment for a wife, and death and mourning feasts which apparently are collectively known as *goru*. On these occasions the usual dance songs are sung, but dancing only takes place to the thumping of bamboo dancing sticks resembling those used in the Koita dance *maginogo*.\* Drums may not even be made during the *dauka* period, nor may food be piled upon the *dubu*, temporary platforms, called *vata*, being used instead. With these exceptions, life proceeded as usual during the *dauka*; houses were built, the customary hunting, fishing, planting, and sexual taboos were observed in the usual way, and a homicide would resort to the *dubu* as at other times.

Twenty years ago this division of time into *kaba* and *dauka* had lapsed (nor could this be attributed to European influence), so that the length of time given for each period is possibly incorrect, though probably not wildly so. Magani Mero, a Sinaugolo headman, explained the matter thus:—

“Long ago the Sinaugolo had to work very hard, camping in the scrub and hunting to get sufficient food for the relatives of their wives, so that there was no time for dancing, and their ceremonies were badly and irregularly observed. In order to regulate their work and ceremony they instituted the *kaba* as a relaxation from the toil of their ordinary life, which was represented by the *dauka* period, during which, as already stated, food is not brought to the *dubu* and the drum is not heard.”

The *tabu* feast itself is so important that, although I have elsewhere described its chief features among the Koita, and though the Sinaugolo ceremony is essentially similar, it yet seems permissible to give a separate account of the latter, the more so since it embodies information collected by Mr. A. C. English, whom the Sinaugolo regard as their friend, and who has lived among them for more than ten years.

All friendly and neighbouring villages take part in the *tabu* feast, yet it is given by one portion of a village and nearly always by one clan, though sometimes two clans unite for the purpose. The final ceremony is accompanied by a prodigious boasting on the part of the men of the clan giving the *tabu* of their open-handedness and of the fertility of their gardens. Although this boasting is partly done in the common Papuan vein of brag, it is also supposed to stimulate one of the clans not giving the *tabu* to accept the challenge, which binds it to give the *tabu* in the next *kaba* period.

The actual preparations for the *tabu* are as follows. About one month after the performance of a dance called *baiseno* a taboo is put upon the chief vegetable articles of diet, such as betel, coconut, yams, bananas, and *taitu* (a kind of yam). The chief feature of the *baiseno* is the presentation of pigs to friends, to be eaten later at the *kaba* ceremony. At first the taboo is stated to be partial, only the best of each article being kept so that a brave show may be made later.

\* This dance is described in “The Melanesians of British New Guinea,” pp. 155, 156.

The imposition of the taboo is publicly discussed before it is put in force. The taboo on garden produce is kept up for about six weeks, during the last fortnight of which food is collected for the *kidua* ceremony as well as to deck the *tabu*, which is the name for the vegetable decoration built upon the *dubu* of the clan providing and giving away the food.

Platforms are built in front of each house, upon which is placed the food which will be given away at the first ceremony, the *kidua*. Meanwhile parties, in which men preponderate, go round the neighbouring villages borrowing pigs and perhaps other food; this collection is called *daiva*, and is understood as an invitation to the *kidua*. *Daiva* is essentially men's work, though women may accompany the men. When the men return, the village is decorated with sugar-cane and other vegetable food, and the yams, etc., which will be given away at the *kidua* are placed on a number of small platforms built for this purpose. The day of the *kidua* is announced, and upon that day all who have given food to the *daiva* will visit the village in force. Before the *kidua* takes place the women of the village go to the nearest creek, wash, shave their eyebrows, and deck themselves in their men's trophies, including even the decorations worn by homicides, which in the case of an unmarried man are worn by his sister. When the women from all the villages that have lent food during the *daiva* are present at the *kidua* a leading man calls to the women of one of these villages to arrange their baskets down the centre of the village street. Then the women of the village, each with a wooden dish (*dihu*) in which are two or three yams or *taitu*, heap food into their visitors' baskets, shouting and praising their own generosity the while. The few yams in the *dihu* are tipped into the baskets, then the other food off the platforms is heaped in. Each visitor may bring two, three, or even four baskets, and it is a point of honour to fill all. When the baskets are filled the visitors take charge of them, and their hostesses, each picking the biggest yam or other food from one of the heaps on the platform, walk once up and down the village street shouting and holding this yam overhead at arm's length. Food is given away in this fashion until the last visiting village has been supplied, but the best food has so far been carefully reserved, and is now presented by the women of the village giving the *kidua* to their special friends among their visitors. The *kidua* ceremony is usually ended in one day, but it may extend into the next.

Next day, after the men have bathed, oiled, and shaved themselves, the dance called *kaba* takes place. After dancing has proceeded for some time the pigs given at the *baiseno* are hauled through the village by ropes and dragged back to their owners' houses, who later take them to the *dubu*, to which they are hung.\*

The giving away of the *tabu* then follows: the *tabu tauna*, i.e., the headman of the clan giving the *tabu*, climbs to the top of the *dubu*, often accompanied by one or two girls who are related to him. The clans not giving the *tabu* collect in a group facing the front of the *dubu*, when the *tabu tauna*, who sings a bragging song vaunting the greatness and wealth of his own clan, throws a sprouting coconut and a few betel nuts upon the ground. The girls on the *dubu* meanwhile have been swinging their petticoats as in dancing. The men of the clan who are giving the *tabu* climb on to the *dubu* after each song and shout at the top of their voices. This is a challenge to the clans to undertake the next *tabu*; the members of the clan accepting the challenge pick up the betel nuts, rush the *dubu* and strip the men on it of their ornaments. This is done fairly roughly, and may lead to minor injuries, but care is taken not to hurt or even touch the girls, who are still swinging their petticoats upon the *dubu*.

For the next two or three days there is much feasting, pigs given at the *baiseno* being killed and eaten.

\* No doubt the men giving the pigs to the feast are the men of the clan or clans giving the *tabu* feast.

In the villages of the Hood Peninsula, where the place of the *dubu* is taken by the house platforms of the steeple houses, called *koge*, these are not decorated, but an enormous quantity of vegetable food is hung on rows of tall poles such as are shown in Plate C, reproduced from a photograph for which I am indebted to Mr. A. C. English. Mr. H. M. Chester describes a series of such poles at Kalo as being "30 feet high and a yard apart . . . bound together with vines, and secured in position by long guys of cane. This [the row of poles] extended 50 yards . . . The scaffold . . . was . . . literally covered with food to the very top of the poles . . . We estimated that there could not have been less than 30,000 coconuts and 500 bunches of bananas, besides yams and sugar-cane on the scaffold poles."\* Although the chief supply of food is not placed upon the platform of the steeplehouse the challenge to give the next *tabu* festival is given from this platform, upon which both the men and the girls of the clan would stand beating drums and swinging their petticoats respectively.

The clan chief kills a pig upon his platform, where the animal is cut up. A limb of the pig is put in a piece of netting, with a panicle of betel nut and about twenty yams; this portion of food, or perhaps the netting enclosing it, is spoken of as *kora*. The *kora* is tied to a piece of thin rope which passes over a horizontal pole at the front of the platform, and the clan-chief "giving away" the *tabu* makes a speech calling upon another clan to come and take the *kora*, which at the time is lowered sufficiently to be within reach of a man standing upon the ground. As a man advances to take the *kora* it is pulled up, and the process of alternately offering and withdrawing the *kora* takes place three or four times. When one clan has secured its *kora*, another name is called out and the process is repeated. Between the giving away of each *kora* the men and girls upon the platform dance, and at the end betel nut and yams are thrown from the platform to the crowds before it. It seemed that whichever clan first speared these yams accepted the responsibility of giving the next *tabu* feast, but I suspect that the acceptance of the *kora* by the clan whose name was first called had the same significance. C. G. SELIGMAN.

## Technology.

Harrison.

**Analysis and Factors of Invention.** By H. S. Harrison, D.Sc.

28

The study of an artefact naturally begins with observations on its morphology—its form and constitution. Enquiry may also be made into the methods and processes by which the artefact, and the materials of which it is made, were produced from the raw material. Proceeding to a consideration of its past history, we could, if the "fossil forms" were all available, identify nearly enough those on the main line of descent, and so trace the course of evolution in detail. Even with such evidence before us the evolution of the techniques employed would not admit of accurate presentation, unless we could also look backwards in time and trace the development of the processes at work, as, for example, in pottery-making by hand. In any case, however, the artefact before our eyes claims first attention, and before passing to more controversial matters it will be convenient to give, in a concise form, the main subdivisions of the morphological field of enquiry. It is not possible to make categories which are free from overlapping, but it is clear that at any one time we may be studying an artefact mainly or solely from any one of the following points of view:—

(a) *Form*.—This covers shape, size, proportions, and the number of variable parts of artefacts used, or shaped, or constructed by man, from pots to pyramids, from flint celts to flint-mines. Integral parts of artefacts, whether separable or not, such as spear-heads and pot-handles, come under this head.

\* Parliamentary Paper. "Further Correspondence respecting New Guinea" (C. 3617), pp. 75 et seq. London, 1883.

(b) *Composition*.—This relates only to the materials of which artefacts, or parts of artefacts, are made, with especial reference to variations in quality, and to change from one material to another.

(c) *Construction*.—This covers artefacts which are made up of two or more separate parts, similar or dissimilar, attached or applied to each other in a fixed relation, with reference not to their form, but to the manner in which the relationship is imposed. Axes, arrows, bark-canoes, megaliths; and all compound or composite artefacts may be considered from this point of view, and some of them may also come under the next heading in respect of particular parts.

(d) *Mechanism*.—All appliances in which there is, during use, a working or movement of one part in relation to another, are included here, as, for example, harpoons, hand-mills, looms, rudders.

(e) *Technique*.—This covers methods and processes by which raw materials are obtained and brought into use, and it may be divided into (1) Procuring, (2) Adapting, (3) Shaping, (4) Combining.

In an enquiry into the origin and development of an invention we are compelled to rely only too largely on deduction and hypothesis, whilst lack of agreement as to the determining factors adds diversity rather than weight to our discussions. We are, and always must be, inadequately provided with evidence from archaeological sources, and we can scarcely hope to fill up the gaps without forming some definite conception as to the manner in which man, in the origination and development of his artefacts, reacted to the discoveries that offered themselves to him; and as to the extent, if any, to which he was able and anxious to project his imagination beyond the limits of the immediate suggestion. I have already put forward some considerations in relation to this question, and to the bearing of our attitude towards it on our conception of the inventive process.\*

We may agree that observation and discovery are essential preliminaries to invention, but unless we can break up this statement into assimilable portions we get no further. We need, in the first place, clear and valid distinctions between the kinds of change that an artefact may undergo, and these distinctions must be based on considerations that ignore neither the properties of matter nor the propensities of mind. Inventions are forged between the hammer of circumstance and the anvil of the human mind, and all factors must necessarily be of the nature of resultants.

Before making a further tentative approach towards a terminology of the factors of invention, it is desirable to pay a little more attention to the scope of applied discovery, which has been intermittently but persistently at work throughout the whole course of inventive progress. Its operation was necessarily manifested in the initiation of man's primary inventions, and it might, therefore, be regarded as the basal factor of invention. It is perhaps simpler, however, to regard it as a process which may occur—and which in many cases must occur—in the operation of other factors, rather than as a factor which stands by itself.

Man has always, it may be presumed, observed phenomena, and made discoveries, the implications of which were beyond the range of his intelligence and knowledge. The progress of invention has depended upon the degree to which intensity or repetition of observation has induced that conviction of constancy which constitutes discovery, and upon the extent to which the state of mental and material culture of the period has permitted and encouraged the utilisation of discovery in the initiation or the development of an invention. In early times it was only when man realised by doing it—being weak in theory—that he could make use of a discovery for the production of an implement or appliance, that he

\* MAN, 1926, 74, 101.

laid the foundation of an invention. Early discoveries and inventions were necessarily of the simplest kinds, since man's training in the detection of the obvious and the obtrusive, still in progress, began before he was human. Beginning with the utilisation of natural objects and substances, he gave to some of them the relative constancy of use and fixity of form which converted them into his primary inventions; and in doing this he opened up new ground for the application of discoveries, in relation, that is to say, to the potentialities of the artefacts themselves. If in the development of inventions variation played one part, and what I have called mutation played another, there still remains to be considered the scope of applied discovery in relation to the progress, as distinct from the initiation, of inventions. Variation is a process which has no final aim, and progress may be slow and erratic. Mutations, on the other hand, are consciously inventive steps, leading to conspicuous advances; as defined up to the present, they involve the adaptational transfer of a device or feature from one appliance to another, or the application of a device or feature which has become well known through its utilisation in other artefacts. It is in such transfer, and in the insight and foresight which accompany it, that the inventive faculty has its main sphere of action.

I wish now to suggest that it is necessary to include amongst the factors of invention changes of another kind, which are in some respects intermediate between variations and mutations. This new category will include abrupt improvements in an artefact arising out of discoveries made in the manufacture or the utilisation of the artefact itself. The steps in advance may appear small in themselves, but each of them results in obvious progress in a definite direction, and the modification is made with a special purpose. Like variations, however, the steps are not dependent for their origin on a prior knowledge based on experience with other artefacts. They result from incidental discoveries of possibilities previously unrealised, and not from directional efforts whose goal lies beyond the immediate step. If the extent to which the inventive faculty is involved is not conspicuous, there is at least some degree of ingenuity required, together with more definite foresight and awareness than occurs in progress by variation. Steps of this kind must be grouped with mutations, and not with variations.

Accepting this new category, the term "mutation" must be extended to cover all cases in which an improvement presents itself as a step in advance which contrasts with changes resulting from gradual variational modification. For the type of mutation I attempted to establish in a previous paper, the term "cross-mutation" may be used, whilst that we have just discussed may be called "free-mutation." With the latter may also be classed the originative steps by which applied discovery gave rise to primary inventions, though it may be preferable to describe them as "primary mutations."

It is necessary to give examples of modifications that seem to owe their origin to free-mutation, and this involves the making of assumptions as to stages of evolution of the appliances selected. As it is within the power of anyone to speculate for his own advantage, or to his own undoing, I shall restrict myself to an enumeration of a few cases of what I believe must have been free-mutations, leaving the reader to imagine how the mutation made itself obtrusive. The examples I would put forward are:—(1) the transition from the spear with point tied on, to the harpoon with detachable head and line; (2) the addition of the second attachment to the steering-paddle, which converted it into the quarter-rudder with rotary motion only; (3) the use of a thong for the drill, by which this became the thong-drill; (4) the use of laze-rods in the loom, and (5) the development of the heddle (rod-and-loops) from one such laze-rod. I need not cite examples of cases in which free-mutation was active in the establishment of the primary inventions.

It is not suggested that there will be no difficulties in distinguishing between free-mutations, cross-mutations, and even variations; at the best, the terms may be accepted as useful in representing types of change (factors) which can be identified and usually distinguished from each other, and, at the worst, they may add something to the resources of controversial language.

In addition to the two main factors, variation and mutation, it seems necessary to recognise a third, which we may call "substitution." This term may be confined to the material change brought about in an artefact when a part or the whole of it was first made of a substance not previously used for the purpose—as, for example, when vessels of stone or gourd were copied in earthenware or metal or basketry, or when a flint arrow-head was replaced by one of similar form in metal.

We are now in a position to tabulate the terminology proposed, and in doing so we may add such subdivisions of our main terms as seem necessary:—

(a) *Variation*, which is the only one of the factors incessantly in action, may be:—(1) *Random*, when it is manifested merely as a number of fluctuations round a standard form or composition, even though it may at times proceed so far in one direction as to give a suggestion for the intervention of one of the higher factors. (2) *Selective*, which involves gradual change in a chosen direction, though this may be determined by considerations remote from the improvement of the artefact in relation to its function. Here again, however, a structural and functional improvement may be based on a feature developed incidentally. (3) *Adaptive*, which depends upon realisation that there is an advantage in continuing along a particular line of modification (e.g., increase in size) which is leading to improvement; this realisation may sometimes have led to sudden changes of such a nature that they approached mutations in their importance. Referring back to our subdivisions of the morphological field of study, we may assume that as regards Form, the principal, though not the only, factor in bringing about change has been variation; this has also been active in changes of Composition, as, for example, in the quality of clay used in pottery-making.

(b) *Substitution* needs little explanation beyond what has already been given, but it is desirable to emphasise its significance in opening up new ground for variation and mutation. The metal celt, and the metal knife, for example, had potentialities far beyond those of their stone predecessors. Substitution is, of course, mainly active in regard to Composition.

(c) *Mutation*, with its two categories, *free-mutation* and *cross-mutation*, has already been sufficiently explained in this and a former article. Here we need merely stress the facts that all mutations are essentially discontinuous and selective, and that they involve either the application of discoveries of the potentialities of natural objects, or of further potentialities of existing artefacts. Free-mutations arise out of both kinds of discovery, whilst cross-mutations depend upon a new application of known discoveries or devices. The main field of action of mutations is in Mechanism, but Form (and Construction) may also be modified by this factor, as I have suggested, for example, in the case of the evolution of the European socketed bronze celt.\*

As regards the application of the above terms to matters of Technique, the influence of all the factors may be recognised. The flaking of flint by percussion shows variation in, for example, changes of the flaking-angle, whilst the change to pressure-flaking may be compared with a free-mutation; the grinding and polishing

\* MAN, 1926, 143. The term mutation as used in that paper with reference to the evolution of the socketed celt may now be replaced by "cross-mutation." In an earlier paper also (MAN, 1926, 101) it was cross-mutations only that were defined, but the extension of the term mutation to cover the two subdivisions does not materially affect the argument.

of flint was probably the result of experience gained in the working of softer stones, and may therefore be regarded as the result of cross-mutation. At present, however, I am not prepared to discuss the detailed application of the terminology to questions of technique, which differ in many respects from those of morphology and mechanism.

I need scarcely say, perhaps, that I do not regard the factors of invention as being limited to the three that have been defined. Indeed, it is obvious that there are many more, though none of the others stands in such close association with the production of the artefacts themselves. There are, for example, limiting factors, which tend to retard invention, or to restrict its scope in relation to a particular appliance; there are also accelerating factors. In recent times the directional character of invention leads to an incomparably greater rate of progress than was possible when men made discoveries and inventions that were always unexpected. We do not know how great, or how small, was the part played by directional invention in the evolution of the material culture of the early civilisations, nor in that of Neolithic man. There is a gap, as to the filling-up of which it would be rash to dogmatise, between the opportunist exploitation of the obtrusive, and the intensive quest of the unobtrusive, upon which modern directional invention so largely depends. Again, we do not know how much allowance must be made for the sporadic genius and inventor, though he is always so dependent on his environment that if he gets too far ahead of commonsense or superstition he is a visionary, a heretic, or a wizard, and is apt to die, along with his creations, in appropriate but disappointing circumstances.

It may be worth while to seek provisional conclusions on these and many other questions, but to do so needs discussion, and discussion without an agreed terminology resolves itself into an interchange of misunderstandings. This is perhaps sufficient excuse for an attempt to introduce new terms, or adapt old terms to new uses. If it seems that I have shown a materialistic bias in regarding the human mind as the anvil rather than the hammer of invention, I must plead that a technologist is a materialist by profession.

H. S. HARRISON.

### Africa, West: Weapons.

Meek.

**Fighting-Wristlets.** By C. K. Meek, M.A.

When visiting Azare (Bauchi Province, Nigeria) in 1924, I was shown by the District Officer (Captain Ramage) a fighting wristlet which was dug up on the ancient site of Shira town. The spikes were rusted together, but it was easy to make out its original form, which was something like the accompanying sketch (Fig. 1):—



FIG. 1.

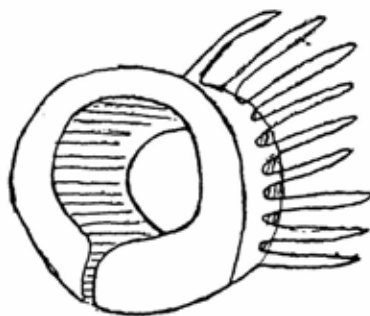


FIG. 2.



FIG. 3.

The present inhabitants of Shira describe the wristlet as a "shashirma," but appear to be unaware of the manner in which it was used.

2. Another type was reported by Mr. P. G. Harris, District Officer, as having been dug up in the Zurmi district of Sokoto Province. The wristlets are believed by the local inhabitants to be the rings of the giants of long ago. A rough reproduction of one of Mr. Harris's drawings is shown herewith (Fig. 2).

3. It is a custom among the Maguzawa at the present time for contests to be held in which a fighting wristlet of the type shown in Fig. 3 is used. It is known variously as a baura, shenshi, kanga, kworaya or kwarakwarau. The contests are held during the dry season and the combatants are two lads, youths, or grown-up men. It is a trial of manhood, and is carried out in the same spirit as the Fulani whipping ordeal known as "sharo," no action being taken on account of injuries received. The wristlet is worn on the right hand, and sometimes a wristlet is worn on the left hand also. The combatants wear special trappings and the arms are swathed in leather strips.



FIG. 4.



FIG. 5.

4. The fighting bracelets of the Mittu tribe of the Upper Nile are illustrated in the British Museum collections, p. 193 (Fig. 4).

5. The Acholi and Lango tribes of Uganda use a fighting wristlet with a guard for the edge (Fig. 5 from the British Museum collections).

6. Among the Kyanga and Shanga similar contests are held, and Mr. P. G. Harris has given the following account, with illustrations:—

"Each combatant wears, tied round each of his wrists, a bracelet (Bagussa = 'thing to cause fear') of iron, from which project sharp spikes in all directions, as in the following sketches (Fig. 6):—

"They face each other and spar with both hands for an opening. The man who gets in first clasps the other round the back and digs in the bracelets, drawing his arms round the other's body and thus making a deep long weal. When a man is down it is customary for the winner—unless prevented—to give the vanquished a *coup de grâce* with his right bracelet on his head or his body, thus causing another wound. A bad bout can lay out a man for three or four months and even kill him, but the average knock-out blow confines a man to his bed for a month.



FIG. 6.

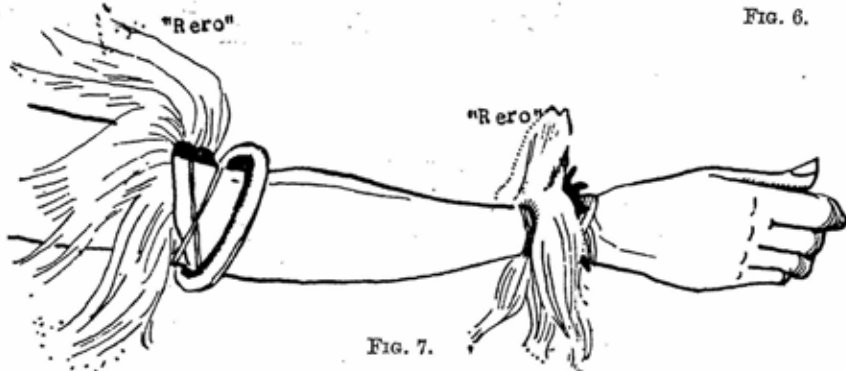


FIG. 7.

"A man who has been knocked out will not re-enter that year, but waits until the next autumn (after the harvest has been gathered), which is the time for these wrestling bouts. The wrestling is accompanied by drumming. It is worth while noting, however, that the commencement of this rather dangerous

" form of wounding is entirely dependent upon the drummers. If the latter refuse to beat the 'evil drumming' (mugun kiddi)—which is five hard fast beats with the stick and three soft with the hand (dafa)—the wrestling cannot occur and its place is taken by dancing, for which a very different tempo is played by the drums.

" After the wrestling is over the wrestlers don the cuffs of ram's wool (rero) at the wrists and elbows (Fig. 7), the 'Kwarkwali' or 'tail,' the 'Beje' round the waist, and tie the knee pads with tinkling metal (chekki) round their knees and dance to the accompaniment of the drum and the small flute-like whistle called

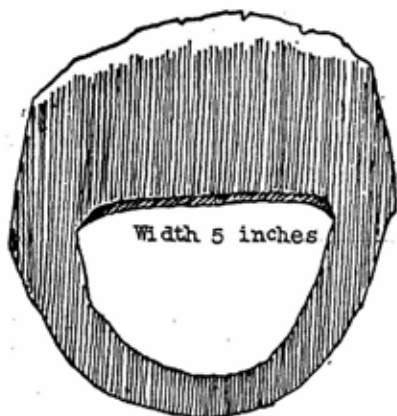


FIG. 8.

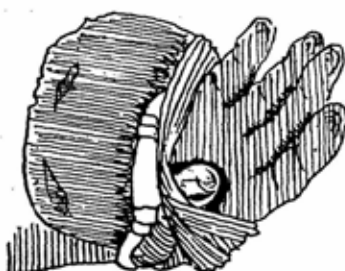


FIG. 9.

" the 'kutti.' [The resemblance between the wearing of the 'chekki' at the knees combined with the use of the drum and flute and the Morris Dancing seen in England and Europe is suggestive.]

" BOXING (dambe).—The pastime of boxing as carried out by the Kyangawa and Shangawa would be more accurately described as 'wounding.'

" Each combatant has his right hand swathed in cloth (as a cushion for the knife). Over the cloth is fitted the cutting knife called the 'mazagi': this is

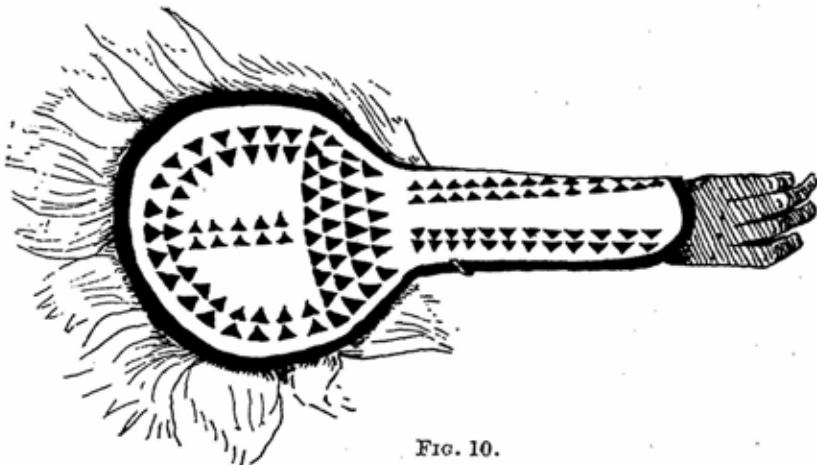


FIG. 10.

" bound with thin rope to keep it in position (see Figs. 8 and 9). Strapped on the outside of his left arm and protecting him from above his elbow to the middle of his left hand the combatant wears a shield called 'matashi' (see Fig. 10).

" The combatants take up the usual Hausa boxing stance: feet apart, left arm in the air touching the opponent's left arm, and right arm drawn behind the

"back ready to strike. They then hit at one another in the usual way, but with the 'mazagi' instead of the fist, warding off the blows with the 'matashi' on the left arm. The 'kwolonga,' or padded bags worn round the waist, are worn for protection of the middle and sides of the body.

"Once blood is drawn the fight is over, and usually the wounds are not very serious, although such events as lopping off one's opponent's nose are not rare.

"In this form of 'boxing' as in the 'wrestling' already described the 'evil drumming' plays the same part—until the drums play the fighting time no one will start to fight. After the fight is over the parties all join in the dance. The three distinctive parts of the dress worn by the 'Yan Dambe' for the dance are:—

"(i) The 'damara' or waist band.

"(ii) The 'kwolonga' or padded bags.

"(iii) The 'kauda' or circlet worn round the head.

"Of the two pastimes, 'Dambe' and 'Kokowa,' I am informed that the 'Dambe' is considered the more dangerous to life and limb."

C. K. MEEK.

## Africa, East: Water Supply.

Watson.

**Wells, Cairns, and Rainpools in Kenya Colony.** *By C. B. G. Watson.*

30

In the easterly parts of the country known as the "Northern Frontier Province" of Kenya one finds wells bored through from 16 to 40 feet of limestone rock, and others taking the form of pits with underground passages leading to the water dug through clay. In certain parts barrows or cairns occur in large numbers. If there is a hill in the desert there is sure to be an excavation at its foot which, in the rare event of rain, soon becomes a lake of sometimes half a mile in diameter.

Among the officials there are two schools of thought. The first attributes the cairns and the wells to volcanic origin and the rainpools to natural hollowing out of the ground by tropical deluges. The opposition believe in an ancient civilisation of a people who have left behind them no trace save their feats as water engineers and cairns that yield no bones, implements or records of any kind. This tribe has been called "The Medenli."

A rough description of the country will not be out of place. Vast areas of desert, open in places, but for the most part covered with dense bush standing 8 to 10 feet, with occasional trees. The ground is either soft sand, white rock or, in the open spaces, "black cotton" soil. Much of the bush is dead and firewood is always to hand. The rest is barren, save for three months after a good rainy season. It is everywhere obvious that the country was once fertile. In certain parts dry river beds of perhaps 30 yards breadth are common.

The present inhabitants—Boran to the west and south, Ogaden Somalis to the east—are bone-idle and only work sufficient wells for their needs, not attempting to repair them or to dig out those that go dry.

Figures will show that the Medenli must have been

(a) immensely numerous and wealthy;

(b) clever water diviners;

(c) cunning engineers;

and that their country was fertile, though now a barren desert.

### Wells.

At El Wak (the wells of the Wak tree) are some 50 wells spread over an area of about 20 square miles. Only a dozen are now used by a mixed Galla-Somali tribe called Gurre. They consist of (a) a deep pit averaging 60 feet deep and 15 broad at the top, (b) underground passages varying in number and length. Wanderers have been known to have been lost forever in these passages.

There is one exception. Here the water lies just out of reach of a lowered bucket and a peculiarly dangerous platform is built covering half the pit. From there a small boy is lowered, who fills the buckets that are lowered to him. Perhaps a digression to the present day would not be out of place. After a good rain, when the wells remain disused for several months, the bottom of this well becomes filled several feet deep with carbonic acid gas. In local parlance a djinn takes up residence and kills the person who first descends. To conciliate the djinn a camel, a goat and an ox are sacrificed and the Koran is read by a holy man. Then a small *girl* is lowered; for, supposing the djinn had not been completely exorcised, the child would die and girls are not as valuable as boys!

We travel southwards to Katulu, Wajir and Arbo. Eastwards for two days from Wajir to Wajir Bor and north-west from Wajir for five days to Buna. All these places have wells of identical structure, totally different to the rough and ready ones at El Wak.

At Katulu there are some 50 wells, all now run dry. They occupy an area of about 2 square miles.

They have been sunk through 12 or 16 feet of limestone rock by this means, it is said. A fire is lit and on burning itself out the crumbled rock is scraped away. The process is repeated until water is reached. This theory is backed by the peculiarly shaped walls of the wells, which are practically perfect circles.

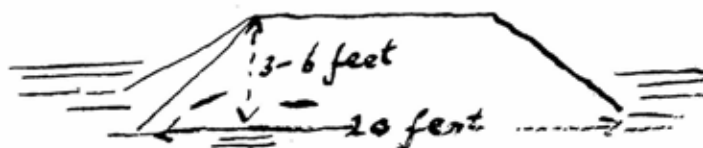
At Wajir one can give figures which give an idea of the size of the Medenli tribe and its stock.

In an area of about 2 square miles there are known to be more than 400 wells of this type, all of which could be used if required to-day. Now in the Government *boma* a few whites and about 300 natives get all the water they require from two wells. Water can be pulled up by tribesmen for a day continuously before a few hours' rest is needed for the water to filter through the sandy subsoil to restore the level. Who then could these people have been who required this immense water supply obtained by such laborious feats of engineering?

At Arbo the wells number about sixty. At Buna we see wells made on the same lines but about 40 feet in depth. To my mind they explode the "volcanic" theory. At Wajir water is not far down and a goatskin bucket can easily be lowered. Therefore the wells are narrow. At Buna, where the water is deep down, they are about 4 feet across and are worked by a dozen men and women, who descend and, standing on ledges, throw giraffe-hide buckets from hand to hand. Nature could never have worked such a convenient fluke.

#### Cairns.

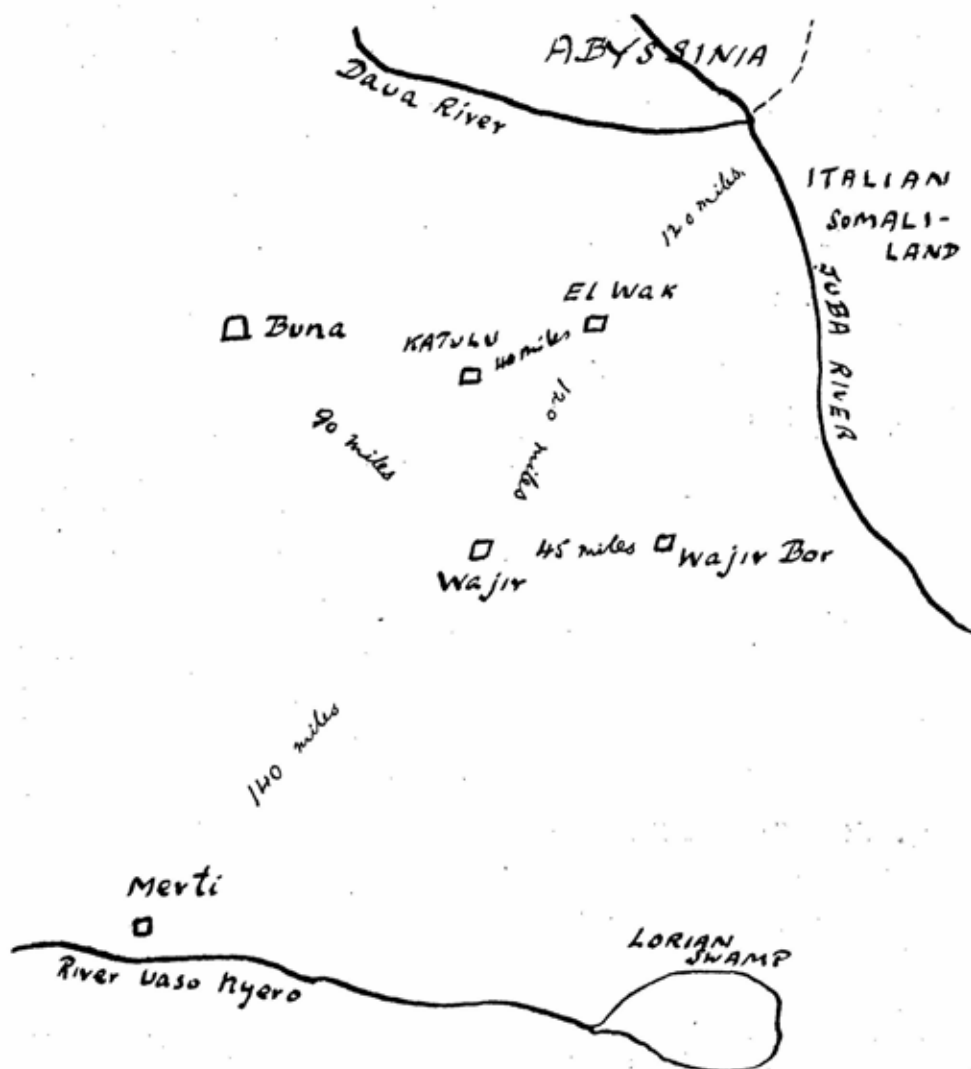
At Wajir and Merti are hundreds of cairns, mostly in good repair. They are made of piled up stones thus:—



We broke up many of the Wajir ones for building purposes, but found nothing.

*Rainpools.*

The average hill in this part presents the appearance of having been squeezed up out of the level of the surrounding country. They are long, very narrow, and the top is usually only a narrow ridge. They are of rock and therefore absorb little rain. Nearby is sure to be found a depression in the ground which soon fills with water during the rains. These waterholes are never found except near a hill or rising ground. Often there are large open spaces near, suggesting cultivation. In fact, one place, now some 40 miles from the nearest water, is known as "beiraha"—the cultivated ground—among a people who are entirely stock-keepers.



It is clear that these wells, cairns and fast-silting-up rainpools were the work of a tribe. The question is—having worked their way south-west to Merti—whither did they vanish?

No trace of their existence can be traced further south. Of the present inhabitants, the Somalis are very new comers and the Galla tribes—Boran, Watta and Sakuye—have come quite recently, fleeing southwards from Abyssinian oppression.

Where did this people learn their engineering and how did they divine the presence of the underground lakes? Above all, where have they vanished to? They could not have worked southwards, for they surely would have left some trace of their industry.

C. B. G. WATSON.

## Religion.

Hocart.

### Confinement at Puberty. By A. M. Hocart.

In my "Early Fijians" (*Journal of the Royal Anthropological Institute*, Vol. XLIX., 1919, p. 48) I suggested that if young ladies in Fiji were "forbidden the sun"—that is, were confined to the house for some time—it was in order to prevent their impregnation by the sun. Cambodian evidence makes it certain that this suggestion is wrong. I will quote Mr. A. Leclère's "Cambodge, Fêtes civiles et religieuses," p. 504:—

"Le *thvoeu-bon chaul-molop* est la fête intime qui se célèbre dans les familles aussitôt que la jeune fille a été 'touchée par un rayon de soleil,' c'est-à-dire aussitôt qu'elle a fleuri, comme on dit dans quelques-unes de nos campagnes. Elle est la cérémonie qui précède 'l'entrée dans l'ombre,' c'est-à-dire dans une sorte de retraite, dans une chambre préparée pour elle où elle sera soustraite aux regards des hommes, même à ceux de son père, et ne pourra se nourrir ni de viande, ni de poisson, ni d'œufs."

It would appear, then, that the girl is withdrawn from the sun's rays not in order to prevent the sun from possessing her, but after he has done so. It is, therefore, a confinement and a fasting after first intercourse.

I should add that a short period of confinement is observed in Ceylon at the first appearance of the menses. The girl lives in a separate room, guarded by a girl or an old woman. The room is called *kiligè*, impurity house. She stays in two or three days, according to the astrologer. The confinement does not appear to be rigorous. The end of it is marked by a feast called *kotahalu magula*, or "short cloth feast," the short cloth being that she wears at the time of her menses.

A. M. HOCART.

## REVIEWS.

### Africa: Linguistics.

Doke.

*The Phonetics of the Zulu Language.*

By C. M. Doke, M.A., D.Litt. Senior Lecturer in Bantu Studies, University of Witwatersrand, Johannesburg. Special Number of "Bantu Studies," Vol. II., July, 1926, and published by University Press, Johannesburg. Pp. 310. Price 15s. 6d.

Written for the D.Litt. degree in 1924, this thesis is of more than passing interest. It represents a high standard of research verified by instrumental experiment. More than that, it stands for the expression in terms of modern science, of many facts which are subconsciously known to any one thoroughly conversant with the thought and speech of Bantu Africa. The majority find that the effort to acquire Bantu thought amidst trying health conditions absorbs all available energy. Hence such studies as this, probably made possible by a life-long acquaintance with the language from infancy, are of priceless value. For at present most of the so-called standard

books for Bantu studies are really classroom theories having little or no acquaintance with the Bantu mind. Any one really conversant with native thought as expressed in speech at once feels the clash. Further, lest we be thought prejudiced, it may be well to remark that a year or so ago the present reviewer was privileged to see in manuscript another advanced Zulu analysis, made this time from the philological viewpoint. Its author wrote from thirty years' close experience; and we may well hope that these two books, the second still in the press, may mark a new era—the recognition of personal knowledge of the spoken tongue as an absolute essential in every scientific study of Bantu.

As to the value of this book for the general student, several remarks may be made. First it is essentially a book for the advanced student of Zulu; but so arranged that the discriminating teacher can easily select what is suitable for an elementary class. In passing we note that the intro-

duction, presumably intended to ease the way for the technical matter, really says little more than has already been said many times; whilst, per contra, the many new symbols added to the International Phonetic Script are unintelligible apart from a certain knowledge of the pronunciation of the words in which they occur, though the author gives a note to each. There is just a question whether this is necessary. Do we, for instance, need a special symbol to indicate the lengthening of the nasal in *tenga* (buy) or, if so, would not the little line there used suffice equally for the nasal in *infene* (baboon) instead of an entirely new symbol?

Secondly, there are some extremely valuable notes which are of wide application; for example, the value of "b"—so familiar in Bantu speech, e.g., "bantu," also "wantu," "antu," according to language—which he points out is an impossible sound. Again, every nasalised medial consonant is, according to this writer, pronounced with a glottal stop, an extremely interesting fact. These glottal stop consonants, more strongly pronounced, are familiar in Ganda as initial consonants; and also, with a less strong pronunciation, as medials—*bʔali* (side); *afudʔe* (he is dead). The author suggests the term "ejective" for this phenomenon.

Thirdly, much might be said upon the differences between Zulu phonetics and normal Bantu. There are not only clicks but also a few onomatopoeic words in which the vowel is accompanied by glottal friction. Remarkable also is it that the author detects a nasal diphthong—*zii*—in such words as *iziyaba* (swarms): for, as stated in my Prefix System, this *zi* prefix really stands for *zin*. Fourthly, mention should be made of the excellent photographs of lip position; for the vowels are an unalterable part of Bantu, causing a peculiar form of Pitch accent, leading on to Intonation more and more pronounced as the Bantu type degrades from its original purity. Yet what Dr. Giles says concerning Greek, viz., that the purity of the vowel system in early dialects is due to the pitch accent, is certainly true of Bantu. In both cases the vowels persist unchanged until some new influence begins to exert stress accent. Zulu is in the first stage downward, viz., the original sense-feeling, to give greatest prominence to the radical vowel, has been transferred to a uniform placing of the so-called accent, the "tone" of Hebrew grammarians, on the penult. Hence we are not surprised to find that our author gives considerable prominence to Intonation. This must be our fifth and last comment on this remarkable and

valuable book. Altogether, he says, there are 9 tones in Zulu. This must be understood in the sense of my previous remarks; it does not mean that we have a whole series of monosyllables only distinguishable by their tones as in the Siam-Chinese family of language. Our author denotes these tones by figures, refers these to certain musical intervals and correlates them to the vibrations per second recorded by a kymograph tracing, taken from an electrically vibrating tuning fork, at 100 vibrations per second standard. It was found that the same speaker always maintained the same intervals on different days; but not the same musical note. Omitting technical symbols, the notation reads, for example:

5 2 2-4 3 3 6 6 6 3 3-5 5 6 6 6 6 6-8 9  
amúko ongahlakanípa ngásikàti sínje  
(there is no one who can become wise all at once).

This is to be understood thus:—that whilst the sentence is pronounced almost on an even tone, there is actually a "pitch," hitherto scarcely recognised by European speakers, according to the figures—6 denotes 120 vibrations; 4 denotes 147.5 etc. The average interval, with three exceptions, is about 10 vibrations.

We strongly commend this carefully thought-out book to the attention of those who wish to think and feel native thought.

W. A. CRABTREE.

Germany: Archæology.

Kossinna.

*Ursprung und Verbreitung der Germanen in vor- und frühgeschichtlicher Zeit* (1. Teil). By Gustaf Kossinna. Berlin: Lixtenfelde. Germanen-Verlag, 1926. Pp. 128. Price 5 marks.

Professor Kossinna, who has just retired from the Chair of Prehistory at Berlin, is unmistakably the most commanding figure among German prehistorians and has exercised a more profound influence on archaeological research, at least east of the Rhine, than any individual since Montelius. Owing to the polemic style of his writings and certain nationalistic idiosyncracies in his speculation, his true greatness is perhaps not fully appreciated in this country. Yet it is much to have raised the study of local prehistoric remains to the status of an officially recognised science and to have created a live school, both of experts and laymen, devoted to its advancement. But Kossinna's foremost achievement was doubtless the elaboration of the method of "Siedlungsarchæologie."

The first section of the present work is a brilliant, albeit popular, exposition of the results obtained by the application of

this method. The settlements and arts of the "Germanen"—by this term is, of course, meant what English philologists call Teutons—are traced backwards from the early historical period as revealed in the Roman authors to the beginning of the Bronze Age. The continuity of settlement is here revealed by a detailed analysis of the archaeological remains and an exact plotting of their distributions. Few will dispute the general correctness of the identification of the "Germans," as defined above, as far back as the second period of the Bronze Age. The attribution of the Lausitz culture to Illyrians will, however, be disputed in Poland and Bohemia, where the authors of this culture are generally taken as Slavs—a view which is perhaps undermined by the latest discoveries in Macedonia.

Another striking testimony to Kossinna's greatness, that is at the same time an obstacle to his comprehension, is the readiness with which even at his advanced age he modifies his views in accordance with the latest advances of his science. The treatment of the Aunjetitz culture in the work before us is a conspicuous instance. Previously assigned to the still united ancestors of the Kelts and Italici, this early Bronze Age civilisation is here definitely assigned to the Illyrians, a view first published in 1918 and confirmed by subsequent researches in Silesia and Poland (provided the equation of Lausitz and Illyrian be tenable). Even more complete changes appear in the second half of this volume.

Here the unimpeachable method of working backwards is abandoned. We are taken at one leap from "Germans" at the beginning of the Bronze Age to the still undivided "Indo-German" folk of the Mesolithic period. Physical anthropology is invoked to prove that the Indo-Germans were Nordics, the point being illustrated by several photographs of antique statuary. The next step is to prove that the Nordic race originated in Scandinavia. We are told that it represents a quite peculiar cross between the "Crô-Magnon" and the "Aurignac" type; for Kossinna admits no other Upper Palæolithic races! In the analysis of the Neolithic and later skulls of Scandinavia and North Germany, designed to prove the continuous occupation of these lands by Nordics, the criteria of Schliz are wisely abandoned for the newer results obtained by Danish investigators. But we are left at the end of the volume with an uncompleted demonstration to be supplemented in a second instalment by the archaeological evidence. This will be

eagerly awaited; for Kossinna has published no complete analysis since 1911. We infer that it will be a restatement of the thesis, already advanced, each time in a different form, in several sketches, of the independent evolution and victorious expansion from Scandinavia of the Nordic culture, a thesis which is losing ground even in Germany to-day, as Schwante's works, to name but one, shows.

V. G. C.

#### Borneo: Ethnography.

Hose.

*Natural Man: A Record from Borneo.* By Dr. Charles Hose. Pp. xvi, 284. 60 plates. With a Preface by Professor G. Elliot Smith. London: Macmillan & Co., 1926. Pp. 274. Price 30s. net.

34

Dr. Hose has made a skilful abridgement of "The Pagan Tribes of Borneo" which will be useful to those who cannot afford the larger book, as it gives a good general idea of the life and beliefs of the people of Sarawak, and more especially of the Kayans. The student, however, will miss much important detail if he relies solely upon the present volume, and in some instances where Dr. Hose has recast descriptions, he will find that the meaning has become less clear, as, for instance, in the account of the Klemantan method of determining the right time for sowing rice (p. 125). There were certain deficiencies in the older book with regard to social organisation which might have been supplemented, but there does not seem to be much new information about the natives themselves. The title of the book is somewhat ambiguous: it appears to suggest that men in a state of nature are to be described, but the nearest to this state are the Punan and other wandering jungle tribes, about whom Professor Elliot Smith in his introduction speaks very feelingly, though all the information about them had been given in the previous work. The nondescript tribes who are classed as Klemantan are also regarded by Dr. Hose as aboriginals, but they have been greatly modified by intrusive culture. The three main immigrations, or possibly series of immigrations, are those of the Kayan-Kenyah, Murut, and Iban peoples, but such folk can scarcely be designated as "Natural Man." The book is certainly an informing "Record" of the ethnological history of Sarawak, for little is said about other parts of Borneo, of which various accounts have been written. For the prehistoric period assumptions have to be made. To the jungle collectors and hunters was brought the industry of cultivating rice, the art of building long-houses

and a knowledge of metal-working. The Kayan-Kenyah migration introduced an organised social polity, and their culture is very well described; Dr. Hose, like others, refers to the close connection between this culture and that of peoples in Northern Burma and in Assam. The Murut are regarded as bringing terrace cultivation, the buffalo, and various special objects and customs. The Iban, or "Wanderers" (often spoken of as Sea Dayaks) seem to have come in two main movements, an earlier one of more peaceful folk who are now more to the south, and a later of the well-known truculent head-hunters who arrived less than 300 years ago. The Chinese have had dealings with Borneo for over a thousand years, and Brunei was almost certainly a Bisayan kingdom under a Buddhist sovereign before it became Mohammedan. Indo-Javanese influence made itself felt, more especially in the west, traces of which still persist. The energetic Malays effected conquests along coastal regions. Pigafetta visited Brunei in 1521, the Dutch arrived in 1600 and the English Captain Cowley in 1685, but they speedily retired. The Dutch permanently settled in South Borneo in 1747. The coming of James Brooke in 1839 opened a new phase in the history of Sarawak, and by his enlightened policy demonstrated how a barbaric community could be successfully governed with the minimum amount of dislocation of ancient usage. The present peacefulness and prosperity of Sarawak is due to the foundations laid by Sir James Brooke, which were well built upon by his nephew, Sir Charles Brooke, whose son, Sir Charles Vyner Brooke, carries on the noble tradition, all of them ably assisted by devoted and wise Resident Magistrates, among whom Dr. Hose takes a very prominent place.

There are 126 illustrations, many of which did not appear in the earlier book, including two of the four coloured plates. The photographs are of the excellent quality to which Dr. Hose has accustomed us, and are of great ethnographical value. There are portraits of the three Rajahs and of the author, and a valuable map is provided which gives the distribution of the peoples of Sarawak. A. C. H.

America, Central: Art.

Joyce.

*Maya and Mexican Art.* By T. A. Joyce. London. 1926. Pp. 191. Illustrated. Price 10s. 6d.

35

In this the author gives a clear and interesting account of the art of the ancient peoples of Central America and Mexico, a

work which he was peculiarly fitted to write not only from his specialist knowledge of these cultures, but also from the wider standpoint of art in general. The book is beautifully illustrated and the various technical processes are well described, but surely it is not correct to say that the Maya were ignorant of mortar? No doubt what was in the author's mind was that they were ignorant of the art of building a properly bonded wall—ignorant, in fact, of the art of masonry as we understand it—but, so far from being ignorant of mortar, their buildings might rather be described as mortar and nothing else. The universal Maya method of building was a core of rubble concrete owing its cohesion to the mortar only, and provided with a veneer of cut stone. No one knows this better than Captain Joyce, but his words might be taken by the uninstructed to mean that the buildings were of dry stone. Also there were not two main pyramids in the temple enclosure of Mexico, but one only, on which there stood two temples. The above are mentioned as being practically the only statements to which exception can be taken in a lucid and admirable study.

A point of much interest is brought out in the remarks on the spirit of each race as expressed in its art. This reviewer was especially impressed with the sympathetic appreciation of the manifestation of the spirit of the Aztec in their works. It does justice to the character of that vigorous and sanguinary people.

Among the illustrations it is interesting to see those of Lubaantun, where the author himself has been excavating, on a site which provides quite a new problem for Maya students in addition to the numerous sufficiently puzzling ones they already had for solution.

RICHARD C. E. LONG.

Papua: Ethnography.

Williams.

*Anthropology, Report No. 5 (Territory of Papua). The Natives of the Purari Delta.* By F. E. Williams, Asst. Government Anthropologist. With Introduction by J. H. P. Murray, C.M.G., Lieutenant-Governor of Papua. Government Printer, Port Moresby, 1924. Pp. xv + 283. Price 20s.

36

This volume, the fifth report of the Anthropologist's Department of the Papuan Government, is the most important publication to date of a department still in its infancy. Mr. Williams has already published two short reports in this series on the Gulf peoples, and in the present work he gives us a systematic account of the

Purari Delta, or Namau, in which he describes all the main aspects of the culture of these people.

A well-illustrated section on Material Culture is followed by a general account of the Social Organisation, in which the somewhat indefinite division into moieties and clans is described. It is clear from this that the really important functional unit is neither the clan nor the moiety, but the *larava*, which can be regarded as a division of the *ravi* or village club-house. It is unfortunate that Mr. Williams is a little vague in his account of the relationship system—perhaps the Purari system is unexpectedly simple—but, apart from this, the social organisation is well dealt with, and the account of the way in which new communities have grown up in the Purari district is convincing.

Religious and Ceremonial Life is treated with considerable detail in Section IV. Of special interest is the ceremonial connected with the wickerwork monsters, *kaiemenu*, associated with the *larava* and kept in an enclosure at the end of the *ravi*. These are of special importance in initiation ceremonies, when new *kaiemenu* are made and the old ones burnt. In spite of the importance of initiation, we find that the usual ordeals are absent and the novice " . . . does not undergo any course of coaching in tribal tradition, manners, or law . . ." although secluded in the *ravi* for several months. There are other forms of initiation, and there is a great variety in the life of the Namau native, which Mr. Williams ably elucidates.

While every reliance may be placed upon Mr. Williams's work, it should be noted that a book dealing with the same people by the Rev. J. H. Holmes, a missionary, appeared at the same time, and there are some discrepancies between the two accounts. This, however, is inevitable in a science which must interpret as well as describe, and the differences may be partly explained by the necessarily different preconceptions brought to bear on the problem by men of totally different training. While a missionary's interpretations may be adopted in preference to those of an anthropologist on certain points, when, as in the present case, the former has had a longer acquaintance with the people, the account of the trained ethnologist is obviously to be preferred in general. However, as Sir Hubert Murray remarks in the introduction, a comparison of the two books will be of interest, and we are indebted to both authors for the important contributions they have made to ethnology. As regards the present excellent monograph, both Mr. Williams

and the Papuan Government are to be congratulated. W. E. ARMSTRONG.

### Egypt: Magic.

Lexa.

*La Magie dans l'Egypte antique.* 37  
Par François Lexa. Paris: Paul  
Geuthner. 1925. Pp. 215, 229, and 1 vol.  
Plates. Price 200 fr. 3 vols.

Dr. Lexa has set out with the aim of giving a detailed account of Egyptian magic from thirty centuries before Christ till the eleventh century A.D. He introduces his subject by recording the opinions of modern Egyptologists and other writers as to the meaning of magic, and explains his own views as to the difference between magic and physical phenomena. This introduction is, of course, for the general reader; but when he begins his first chapter with the words "L'ancien Egyptien 'avait ses besoins et désirs comme tout 'autre homme,'" it is evident that the whole book is for the general reader and not for the scholar. For this purpose it will be extremely useful, for there is one volume of translations of magical texts, both from Egyptian and Coptic. Dr. Lexa has, however, missed a great opportunity: with the material he has collected he might have written a work of the utmost value for scholars by showing the development and changes of ideas which took place during the long period covered. The book consists of three volumes; the first is the "Exposé," with chapters on magical formulae and rites, amulets, the relation between magic and religion, and the inter-relation between Egyptian and Greek magic; the second volume contains translations, from Egyptian and Coptic, of magical texts, of which the Coptic are extremely interesting. The third volume is an atlas of plates; it is in some ways more interesting than the other two, as giving examples of objects, paintings and writings used for magical purposes. It is a matter of regret that Dr. Lexa has added another method of transcription of Egyptian names to the list already in use. Anoupew, Eset, and Ousirew, for Anubis, Isis, and Osiris, are unnecessarily cumbersome, especially as the Greek forms of the names have been established so long.

M. A. MURRAY.

### Technology.

Christy.

*The Bryant and May Museum of*  
*Fire-making Appliances: Catalogue* 38  
*of the Exhibits.* Compiled by Miller  
Christy. London, 1926. Pp. 255, with  
410 illustrations. 5s. net. [The Book  
Trade supplied by Simpkin, Marshall &  
Co., Ltd.]

Some of those who were present at the opening of this Museum, in the offices of Messrs. Bryant & May at Bow, may have felt that such a collection as that of Mr. Edward Bidwell should have found a home in a public Museum, but they could have had no desire to reproach the firm for their enterprise. The directors must indeed be congratulated on the enlightenment which led them to devote the necessary space, and provide the cases, for a collection so fully illustrative of the methods and development of fire-making through the ages. Though most of the specimens date from within the last two or three hundred years—and especially from within the last hundred or so—this is due to causes which are too well known to call for discussion. That the services of Mr. Miller Christy should have been secured for the arrangement of the collection, and for the preparation of this Guide, is as fortunate as it was appropriate.

Although most of the space in the book is occupied by very complete descriptions of the individual specimens—many of which are illustrated in half-tone—the Introduction and various headings and notes between the sections give a summary account of the whole history of fire-making.

Whilst waiting for Mr. Christy's long-expected treatise on the subject, we are glad to have this guide-book as a foretaste. To those who are specially interested in the evolution of inventions, the most attractive section of the Guide is that which deals with the various tentative approaches towards a cheap and efficient method of obtaining fire by chemical action, and with the eventual emergence of the friction-match. A true and full history of this phase will probably never be worked out, the data being inadequate, but we cannot doubt that the match was the invention of a period rather than a person. We may be content to give Mr. John Walker, of Stockton-on-Tees, a great deal of credit for what he is known to have done, but there were others, and many of them receive due notice from Mr. Christy.

The Museum should be visited—by arrangement made beforehand with the company—and the Guide should be in all museums and most libraries. H. S. H.

America, South: Technology. Linné.

*The Technique of South American Ceramics.* By S. Linné. Goth- **39**  
enburg. 1926. pp. 199.

This work is one of the excellent series on the technology of South American

Indians, initiated by Baron Erland Nordenskiöld and published in Gothenburg.

It is a study of pottery-making and describes the various methods of making, such as (1) direct shaping, (2) coil method—by far the most common—and (3) mould made, such as was common on the Peruvian coast before the arrival of the Spaniards. The author is of the opinion that the earliest settlers in South America did not make pottery, as the lowest archaeological strata on the West Coast show no pottery remains, and some tribes shown on Map I. did not possess pottery, while others possessed more primitive vessels for holding and cooking foods, such as calabashes and water-tight baskets. (Map II.) He thinks also that there is justification for the assumption that the invention of pottery was independently made on American ground and considers that there are many reasons for supposing "that the cradle of pottery-making lay within the Central American Culture Area," whence it spread north and south. At present the making of pottery in South America is entirely in the hands of women, but we have no evidence to prove that the very elaborate pottery of Peru was made only by women.

The greater part of the book deals with what may be called the topography of technical details, such as the areas of origin of clays and regions where is found the use of particular materials for tempering, such as sand, crushed pottery fragments, ash from a bark rich in silica, pounded shells, calcined bones and burnt and crushed sponges. Maps of the distribution of these methods are given and illustrations of microscopic sections, highly magnified, of pottery containing the various tempering materials.

The different methods of firing the pottery are discussed fully. On page 134 Linné makes a strange statement when discussing the ornamentation of pottery; he says: "It is occasionally difficult to determine whether the superficial coating is to be put down as paint or slip, but this question can be decided from the extent to which the surface of the vessel has been covered."

This is inaccurate, as slip is merely a fine wash of clay and it does not matter if it extends over the whole pot or not; thus one speaks of designs painted in slip.

This work is a most valuable contribution to our knowledge of the technology of South American ceramics which all future students of the subject will have to consult. L. C. G. C.

Economics.

Hoyt.

*Primitive Trade: its Psychology and Economics.* By Elizabeth Ellis Hoyt, A.M., Ph.D., Associate Professor of Economics, Iowa State College. Kegan Paul, 1926. Pp. 191. Price 7s. 6d.

This interesting little book by an economist brings together a number of facts about the methods of exchange amongst primitive peoples. The author endeavours to show, historically and psychologically, how objective values come to be assigned to goods. Incidentally, the rarity of competitive prices amongst primitives is well brought out, as well as the frequent occurrence of exchange as an important social or religious institution having little direct economic significance. The author does not subscribe to a unilinear evolution of objective values, and this is, perhaps, why she gives us no simple conclusions. The psychology and theory of culture developed briefly in the first part of the book is of some interest, and there is a useful bibliography. The book should be of value to the economist and a stimulus to the psychologist and sociologist.

W. E. ARMSTRONG.

New Guinea: Ethnography.

Saville.

*In Unknown New Guinea.* By W. J. V. Saville, with an Introduction by Bronislaw Malinowski, Ph.D., D.Sc., Lecturer in Social Anthropology, University of London. London: Seeley, Service & Co., 1926. Pp. 316. With 58 illustrations and maps.

The merely popular book on a relatively unknown people by the missionary resident amongst them is, fortunately, coming to be replaced by the book of real scientific value. In Papua, the influence of the Cambridge Expedition to Torres Straits and the leanings of the present Lieutenant-Governor have had much to do with this progress, and we see the fruit of this influence in the present book, whose author is a missionary.

Mr. Saville's book is an ethnological account presented with that eye to system and sociological significance which is usually found only in the writings of professional ethnologists. The area dealt with is a strip of coast inhabited by the most easterly of the western Papuo-Melanesians, a group, however, speaking a Papuan

dialect. The only detailed account of these people is that of Dr. Malinowski, who resided on Mailu Island for six months in 1914-15. Mr. Saville, who has resided in the district for over twenty years, has contributed much further information, especially in those matters which only come to light as a result of long and intimate contact with, combined with a scientific interest in, the native. But, as Dr. Malinowski remarks in his foreword to the book, ". . . He has not relied exclusively upon the magic of the 'daily contact' with natives, but has attacked the study of sociological principles, acquired scientific terminology, and has become familiar with anthropological methods. . . ." A paragraph in the chapter on "Kinship" may be referred to as showing that Mr. Saville has observed what most missionaries would ignore and most ethnologists find it difficult to discover. Mr. Saville has just described the usual taboos on the use of certain names of relatives, and he then gives an example of how, in practice, they are sometimes broken. "A couple is having a private tiff. One of them purposely breaks the law by mentioning a certain name, the other appropriately retaliates in the same way, and so on, till they have each run through the whole category of forbidden names."

It is of interest to find that these Papuan-speaking peoples are remarkably close in culture to the Massim, in spite of the matrilineal institutions of the latter. The Govi festival, perhaps the most important institution of the Mailu, is described in sufficient detail for us to recognise its identity with the Soi of the neighbouring Massim. While there are differences of detail the similarities extend even to many identities of name, in spite of the difference of language. Mr. Saville's description of the *kanari*, with its striking characteristic of extreme solemnity, would apply with scarcely any alteration to the *kanari* of the Soi complex.

While the native sociology is well described, material culture is not ignored, and we find, for example, an excellent description of the various kinds of canoe. Throughout, the book is most readable and is a contribution to Papuan ethnology of great value.

W. E. ARMSTRONG.

## CORRESPONDENCE.

Sex Ratios.

Pitt-Rivers.

**Sex Ratios and Cultural Contact.***To the Editor of MAN.*

SIR,—In his letter in the February issue of MAN, Mr. Torday states that having adopted Düssing's theory I "ought

to have carried it to its logical conclusion," and appeals to us not to be content with "generalisations which are more of the domain of the politician than of the man of science." My critic shows that he has neither understood nor

correctly applied my theory, which is not adopted from Düssing, although in some respects only it is not inconsistent with his theory. My generalisations are based on verifiable correlations and data which are fully set out in my book now in the press, "The Clash of Culture and the Clash of Race" (Routledge & Sons).

The variable factor all important to the theory of sex ratio variation and its relation to decline of population is the differential sex survival rate, not the birth sex ratio. On this point lies the fundamental difference between Düssing's hypothesis and my conclusions. I have not neglected, as your correspondent suggests, to discuss "definite measures" by which the decline of vanishing races "might be prevented."

The new treatment of a subject always encounters more opposition than a more familiar one, since to understand it entails fresh labour for critics, who sometimes prefer to dismiss a new theory with old arguments which do not apply.

I am extremely glad that Mr. Torday takes an interest in my views; but I hope, after he has read my book, to have the benefit of his conclusions concretely stated in place of the vague "generalisations of a politician."

Yours faithfully,

G. PITT-RIVERS.

Archæology.

Fox.

#### The Excavation of the Five Knolls, Dunstable.

To the Editor of MAN.

43

SIR,—The interesting results of the excavation of the Five Knolls, Dunstable, recorded by Mr. C. Daryll Forde (MAN, 1927, 12) provokes criticism on one point. It is stated that the University College and Hospital Anthropological Society has "undertaken the systematic excavation" of these barrows. Neither in respect to the barrows referred to incidentally in the communication, nor in the case of the barrow No. 5, particularly referred to, does the work carried out appear adequate from a scientific standpoint. In my

opinion, no monument of antiquity of the importance and interest of a Bronze Age barrow ought to be touched, unless the investigators are prepared to examine it completely.

Complete investigation involves the turning over of the material of a barrow from end to end, and the testing of its floor at all points. Only by such means can the digger be sure that all the information, historical, archæological, sociological and anthropological, which such a barrow may contain, has been yielded. The plan accompanying the article (Fig. 2) shows that barrow No. 5 was merely trenched across the centre. Numerous secondary deposits may lie in the mass of the barrow on either side and particularly to the south of the trench; and evidences of funeral feasts or other ceremonial may lie under the untouched portion.

The evil is not that evidence has been carelessly destroyed, but that a virgin barrow once having been opened, and important deposits revealed, no future investigators will trouble to re-examine it, and our knowledge of its meaning and contents will remain imperfect. In a case which came under my own observation the *periphery* of a barrow which had been turned over from end to end yielded numerous deposits (*Camb. Antiq. Soc.*, XXVI, p. 19ff.); in another (*Arch. Camb.*, 1926, p. 48ff.) the evidences of elaborate ceremonial revealed in the sub-soil were no less important. Methods such as those adopted at Dunstable would, in both these cases, have failed to reveal important facts.

I would, therefore, urge on all field archæologists the importance of a proper and adequate technique in dealing with the rapidly-diminishing number of untouched Bronze Age burial mounds in this country. The evil of scamped research would soon be removed if owners were to refuse permission to prospective diggers unless the assurance of complete investigation were given.

Yours faithfully,

CYRIL FOX.

#### CORRIGENDA.

In MAN, 1927, 12, p. 25, in the "Report on the Excavation of a Bronze Age Tumulus at Dunstable," the dimensions of the oval cist (Pl. B., Fig. 1) cut in the chalk are given wrongly. They should read as follows: "length, 3 feet 3 inches; width, 2 feet 2 inches; depth, 1 foot 6 inches."

P. 23, fourth line from bottom, for "trochantes" read "trochanter."





FIG. 2.



FIG. 4.



FIG. 1.



FIG. 3.

THE DISPOSAL OF THE DEAD AT WAKOCHING.

## ORIGINAL ARTICLES.

With Plate D.

Assam: Religion.

Hutton.

**The Disposal of the Dead at Wakching.** By J. H. Hutton, C.I.E.,  
I.C.S. With Plate D. 44

The following note as to the disposal of the dead at Wakching, a village of the Konyak tribe in the Naga Hills, was taken by me in June, 1925. For supplying me with some details, in particular as to disposal in the case of certain forms of "apotia" deaths, which I had omitted to take at the time, I am indebted to Mr. C. R. Pawsey of Mokokchung. The drawings are from rough sketches made by me on the spot. The photographs which I attempted to take at that time all failed owing to a faulty pack of films in which each exposure was obscured; but others were obtained on the occasion of a subsequent visit.

The body of the deceased is carefully wrapped in leaves of the thatching palm (*livistona jenkinsiana*) and put among the boughs of a tree called *nyie*, of which there are six ordinarily in use associated with and situated near the respective

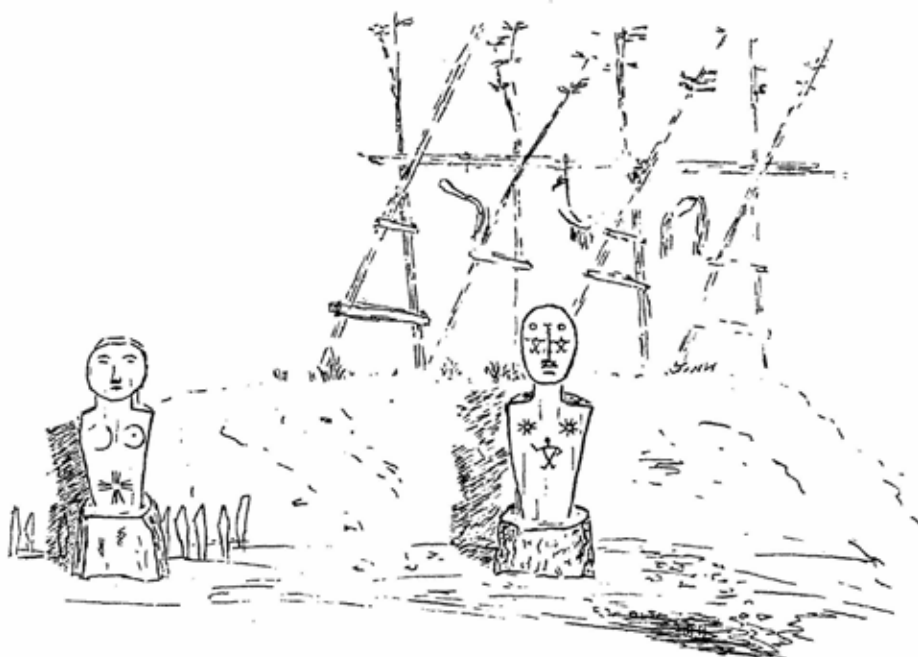


FIG. 1.—MALE AND FEMALE SOUL FIGURES FOR THE TEMPORARY ACCOMMODATION OF THE SOULS OF THE DEAD, PENDING THE REMOVAL OF THE SKULL TO A STONE CIST—WAKCHING.

"morungs" of the clans using them. Outside the village, on one of the main approaches to it, a rail is put up, against which a few bamboos are leant forming a sort of very thin screen or shelter, apparently intended to attract the attention of the passer-by, but possibly intended originally to protect the soul. This screen is of a similar nature, though purely perfunctory in construction, to that put up by some Angamis.\* In front of it a wooden figure of a man is set, for the soul to inhabit temporarily (Fig. 1). The one which I saw was a bust only, ending a little below the waist. This wooden figure can be, and is, used again for other dead when the skull has been finally disposed of as described below. Presumably the soul

\* v. "The Angami Nagas," p. 4 and illustration.

which occupied it first, left it when its obsequies were complete. After nine days the body is sufficiently decomposed for the head to be detached, after which the skull is cleaned by the children of the deceased, or, failing them, by some other relatives. The cleaned skull is put in the village cemetery, a spot close to the village, but surrounded by forest, in a stone receptacle specially made for it (Plate D, Fig. 1). This receptacle is a solid conical sandstone block from two to three feet in height and two to four feet in maximum girth, with an arched recess hollowed out in one side to take the skull. When erected, this recess is closed with a piece of flat stone, kept in place by bamboo pegs driven into the ground, and the whole is covered by a conical sheath of thatching palmleaf, stiffened with bamboo slats, exactly like those put over the box-shaped skull-cists of Kongan.\* (Fig. 2). This sheath soon rots away; the bamboo pegs holding up the flat stone decay and let it fall, and the form in which most of these receptacles are seen is that of the unprotected conical stone, with the skull white and visible inside its recess. In some cases the whole is covered with a layer of fine green moss, binding the skull to the stone, but in no way obscuring its outline. In others the ground has risen or the stone sunk till the recess itself is hidden below the surface of the soil. The skulls of both males and females are treated in the same way; but the cist



FIG. 2.

1. SKULL RECEPTACLE SHEATHED.
2. SKULL RECEPTACLE WITH OPENING CLOSED AS WHEN FIRST ERECTED.

used for a woman's skull is of a different shape to that used for a male. The stones are grouped without, apparently, any definite orientation. The shape of the stones suggests a derivation from the male organ of generation (see Figs. 3, 4 and 5), confirmation of which is to be found in the fact that persons desirous of having children perform ceremonies over one of these stones. The more recent stones tend to have a flat surface on the side in which the recess is made, and the rounded shape of the older stones seems to be giving way to a quadrangular one. Many of the stones are quite plain, but more are carved with various patterns (Plate D, Fig. 2), some of which are distinctly reminiscent of the patterns on the monoliths at Dimapur,† and

one of these patterns, which immediately reminded me of the "maltese cross" pattern so frequent on the cylindrical monoliths there, was interpreted as representing a hornbill in flight. A circular disc probably representing one of the heavenly bodies, is also frequent, as at Dimapur, and another pattern seen appears to represent the rainbow so often associated with the dead in the Naga Hills, being presumably the path by which the soul ascends to heaven.‡ This idea is apparently inconsistent with the conception of the soul as dwelling in the stone and promoting the fertility of the village, its inhabitants, cattle, crops and game; but, after all, it is the heavens which fertilise the earth in the form of rain.

The souls of those who have died calamitous ("apotia") deaths appear to be either dangerous to the community or at any rate a doubtful asset, and are dealt with in different ways accordingly. Thus in the cases of deaths in war, by wild animals, or by falling from a tree, the whole corpse is kept below and away from the *nyie* trees, and the head is not detached. In the case of persons dying of some epidemic the head is detached, but put into a pot,

\* See "The Use of Stone in the Naga Hills," *J.R.A.I.*, LVI, p. 71.

† v. *J.R.A.I.*, vol. LII; Shakespear, "History of Upper Assam, &c.," pp. 77-80, and Godwin-Austin, "Ruins of Dimapur, &c." in *J.A.S.B.*, 1 of 1874.

‡ Vide *Folklore*, XXXVI., "Astronomical Beliefs in Assam," p. 128 sq.

which is buried up to the rim in the ground; while in the case of death by drowning the body is placed on a platform made by bending together two trees near the place where death occurred, the head being detached only in the case of persons of importance, and then put in a pot, as in the case of the victims of epidemics, and buried below and away from the *nyie* trees, where it can not be seen.

In the case of children the head is not detached, but the body is wrapped whole in a mat and put in a tree "because children fear tigers, and feel safer in a tree." The tree used is a *figus*, as I think the *nyie* is likewise, and it is hardly necessary to point out how closely this sort of tree is associated with fertility cults in many parts of the world.\*

This particular custom of disposing of the skulls of the dead in what appear to be phalli of carved stone is limited, as far as I know, to the adjacent and hostile villages of Wakching and Wanching. A clan living in Wakching but deriving its origin from Wanching is not, on account of this ancient feud, allowed to dispose of its skulls in either of the village cemeteries, but has a separate little golgotha of its own. The custom seems, however, to be important for several reasons. First of all it forms a definite link in the chain between the menhir and the carved wooden soul-figure. We have the Angami menhir set up in the rice-fields or the outskirts of the village, the carved stone phalli of Dimapur and Jamuguri,† the Wakching skull-stones described here, the wooden and basket-work skull- and soul-figures of the trans-Yangmun Konyaks, and to complete the circle the wooden Angami soul-figures. The Trans-Yangmun Konyaks set up near the outskirts of the village, in family groups under little thatched shelters, wooden figures with horn-like projections on each side of the head (Plate D, Fig. 4). These "horns" are to retain the skull in position on the head of the figure during the time considered necessary for the soul to transfer itself from the skull to the wooden image. When a woven figure of split bamboo takes the place of the wooden one, the skull is placed in a basket receptacle in the actual position of the head. There is no trace of the survival of such a practice in the Angami soul-figure, but an antique Garo *kima*‡ in the Indian Museum at Calcutta has the horns on each side of the head instead of at the back as in Playfair's illustration, suggesting that the Garos once had the same practice as the trans-Yangmun Konyaks. In any case the Wakching practice seems definitely to confirm the theory that the soul is lodged in a phallic menhir for purposes of



FIG. 3.—SKULL CISTS AT WAKCHING.

\* e.g., Italy and Africa (*Golden Bough*, II., 313, 316, 317; VIII, 11), and also Melanesia.

† See *J.R.A.I.*, vols. LII & LIII, "Carved Monoliths at Dimapur," etc.; "Meaning, etc. of Erection of Monoliths by Naga Tribes; Carved Monoliths at Jamuguri in Assam."

‡ v. Playfair, "The Garos," p. 113.

fertilization.\* It also suggests a possible origin for the cavities hollowed out at the foot of certain upright stones at Jamuguri† and Horupani.‡

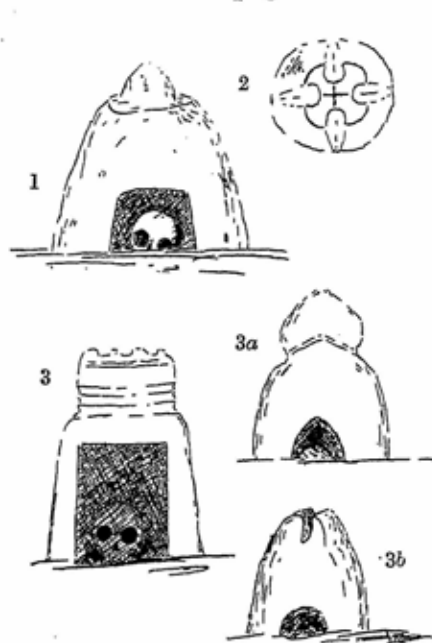


FIG. 4.

1. ANTHROPOMORPHIC CIST.
2. A CIST FROM ABOVE.
- 3, 3a, 3b. PHALLIC SKULL CISTS AT WAKCHING.

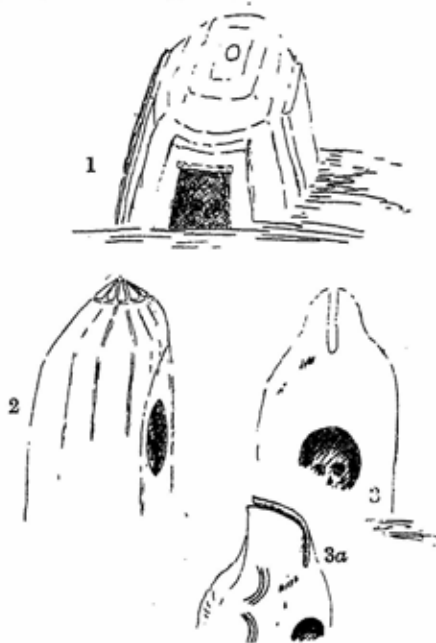


FIG. 5.

1. CIST FOR FEMALE SKULL AT WAKCHING.
2. MALE SKULL CIST AT WAKCHING.
- 3, 3a. FEMALE SKULL CIST AT WAKCHING.

Finally, the Wakching, trans-Yangmun and Kongan customs above referred to seem to form another link between Assam and the Pacific, where similar customs are common.§

#### DESCRIPTIONS OF PLATE D.

FIG. 1.—Wakching Cemetery.

FIG. 2.—Models (reduced in size) of the stone skull receptacles made on the spot, supplied with monkey skulls instead of human.

FIG. 3.—The cemetery of the skulls of the *Anga* (chiefs) and the *Ang* clan at Wanching.

FIG. 4.—Soul figures with "skull horns" from Yonghong (I) and Augfang (II and III). The marks on the foreheads of III do not represent tatooings, but the method of wearing the hair adopted by women who plucked part by the roots to leave a pattern of this sort. These figures are now in the Pitt-Rivers Museum, Oxford. No. 1 still retains the leaf pod on which the skull rested.

#### Solomon Islands: Linguistics.

Waterhouse, Ray.

**The Baniata Language of Rendova Island.** By W. H. L. Waterhouse. Communicated, with Notes, by S. H. Ray.

45

The island named Rendova on the charts is more correctly written Randuvu. It is situated south of the Roviana Lagoon at the western end of New Georgia.

\* v. J.R.A.I., LIII, p. 158.

† J.R.A.I., LIII, p. 152.

‡ J.A.S.B., vol. XX, 94, No. 5, fig. 8.

§ v. Frazer, "Belief in Immortality," 311, 321; II. 282, 297, 313, 323., 324; III., 277, 282, 285.

No specimen of the language has hitherto been published, and the island does not appear to have been visited by any member of the Percy Sladen Trust Expedition in 1908.

The material for the present sketch is due to W. H. L. Waterhouse, of the Australian Methodist Missionary Society, who has been working for some years at Roviana. The village of Baniata is apparently on the western point of Rendova Island.\* According to Somerville and Weigall, two dialects are spoken: Banyetta on the western seaboard of the island and Lukru on the eastern. Rubiana (i.e., Roviana) being spoken at Korari and Ugheli on the north.†

Mr. Waterhouse writes with regard to the language—called *Baniata Hanaso*: “I may say that I have had the greatest trouble to get and check what little I have been able to gather. There is either a great latitude in their ‘hanaso,’ or they are very careless or indifferent about some of the sounds. So far as I can see, I should say the people come from a different stock to the New Georgians, though only about eight miles away. They seem to have kept to themselves and not intermarried much with the Simbo (Eddystone Island) and other people. I think they are a finer stamp of people than the Roviana tribes.”

The Baniata language is very different from the Melanesian Roviana, for which Mr. Waterhouse adds the equivalent words and phrases. There is no apparent likeness to any other language of the Western Solomons. The alphabet used is that of Roviana. B = mb; d = b or nd; n (italic) = ng in ‘sing’; q = ng in ‘finger’; nj = nearly nz or ns. In the words for ‘butterfly,’ and ‘star,’ Baniata f = Roviana p.

*Grammar Notes:*

The word for ‘bird’ or ‘animal’ (?) shows a suffix -no singular and -mo plural: *manono*, bird; *manomo*, birds. In the vocabulary are the words *orono*, sea, also tree; *fafono*, flesh; *ihuno*, mat; *seino*, spear. Cf. Numerals and Demonstratives.

The suffix *rede* appears to show the dual: *eri arove mano rede*, two birds. In this example *arove* appears to mean ‘flying.’ Nouns indicating persons have a masculine prefix *zo*, feminine *vo*.

The phrase *orou vesu*, fruit of (*orono*, tree) shows a genitive as in Vella Lavella *ore ko lekona*, tree of leaf.

The adjective precedes the noun: *ni uzi*, good spirit; *rivo uzi*, bad spirit. Many adjectives end in -ta, which is dropped in composition: *rivo-ta*, bad; *ni-ta*, good, etc.

The pronouns are not given: *uo* is whose? equivalent to the Vella Lavella *lala ko*? whom of? The Roviana is *tesei*? belonging (to) whom?

The demonstrative apparently changes according to the object signified, as in Nasioi and other languages of south-east Bougainville. The numerals show similar changes. Mr. Waterhouse gives the following examples: *Uo va dena*? Whose house is this? (R. *Tesei sa vetu hie*? Whose the house this?)‡ *Uo mora demi*? Whose canoe is this? (R. *Tesei sa mola hie*?) *Uo moite demi*? Whose knife is this? (R. *Tesei sa magu hie*?) *Uo orono deno*? Whose tree is this? (R. *Tesei sa huda hie*?) *Uo hoi rede dena rede*? Whose lamps (2) are these? (R. *Tesei sa zuke hire*? Whose the lamp these?)

\* Cf. Mr. A. M. Hocart's map in *Jour. Roy. Anthropol. Inst.*, LII, 1924, p. 260.

† “A Vocabulary of Various Dialects used in New Georgia.” By Lieuts. B. T. Somerville and S. C. Weigall, R.N. London, 1896, p. 4.

‡ Sentences marked R. are Roviana.

*Numerals:*

These are quite distinct. I have added the Roviana and (Bilua) Vella Lavella equivalents.

Baniata: 1, *tufi*; 2, *eri*; 3, *hie*; 4, *avo*; 5, *sodu*; 6, *tubi*; 7, *ohio*; 8, *bihio*; 9, *bovoho*; 10, *to*; 11, *to arono*; 12, *to eri*; 20, *eri to*; 21, *eri to alono*; 30, *hie to*; 100, *aro tovo*.

Roviana: 1, *tasa, keke*; 2, *karua*; 3, *ka neta*; 4, *ka made*; 5, *ka lima*; 6, *ka onomo*; 7, *ka zuapa*; 8, *ka vesu*; 9, *ka sia*; 10, *ka manege*; 11, *ka manege eke*; 12, *ka manege rua*; 20, *hiokona*; 30, *tolu navulu*; 100, *gogoto*.

Bilua: 1, *omadeu*; 2, *omuga*; 3, *zouke*; 4, *ariku*; 5, *sike*; 6, *varimuja*; 7, *sikeura*; 8, *liotolu*; 9, *siakava*; 10, *toni*; 11, *toni omadeu*; 12, *toni omuga*; 20, *karabete*; 30, *zouke toni*; 100, *omadeu paizana*.\*

In Baniata the numeral apparently changes according to the thing enumerated, as in south-east Bougainville. Mr. Waterhouse writes: *aro va*, one house (R. *keke vetu*); *ano arove manono*, one bird (R. *keke kurukuru tapuru*); *eri arove mano rede*, two birds (R. *karua kurukuru tapuru*); *hie arove mano fio*, three birds (R. *ka neta kurukuru tapuru*); *avo arove mano fio*, four birds; *sodu arove mano fio*, five birds.

*Verbs:*

Mr. Waterhouse gives the following sentences:—

1. *Vo fizu finoma bazo fei reu enano*, the old woman is about to go to the beach (R. *Kote la pa masa sa kalege*, about to go to beach the old woman).

2. *Zo fizu bazo fei reu enano*, the old man is about to go to beach (R. *Kote la pa masa sa baragoso*, about to go to beach the old man.)

3. *Zo hisasa bazo miga fei reu enano*, the head chief is about to go to the beach (R. *Kote la pa masa sa banara*, about to go to beach the chief.)

4. *E zo hi afi miga fei reua*, the chief has gone to the beach (R. *Ele la pa masa sa banara*, has gone to beach the chief.)

*Imperatives:*

1. *No miga fei reu ia!* (You) go to the beach! (R. *Mu la pa masa!* You go to beach!)

2. *No bua higo edo reu ia!* (You) go to the bush! (R. *Mu la pa higo higo!*)

In the foregoing: *miga* = towards the beach, *bua* = towards the bush.

*Na isi bo na nebi!* Bind the small pig! (R. *Pusia sa boko hitekina!* Bind it the pig small!) *Kokoreko nebi re!* Bind the fowl! (R. *Pusia sa kokorako!* Bind it the fowl!) *Kodorako zere nebi re!* Bind the fowls! (R. *Pusia rini na kokorako!* Bind them the fowl!)

A call to catch a person's attention is: *Rio!* to a male, *Ito!* to a female. In Roviana: *Tio!* to both male and female.

*Vocabulary:*

This shows very few words the same in Baniata and Roviana, and they are the common words used in this part of the Solomon Islands: *koaka*, *mora* or *mola*, canoe; *bokala* or *bokara*, bow; *kokorako*, fowl; *igana*, fish; *gutulu*, louse; *rogo*, mosquito; *mano* (*manu*), bird. *Fesu*, earth; Roviana, *pepeso*; and *finofino*, star, Roviana, *pinopino*, are not common elsewhere.

The words for 'father,' *mama*, and 'mother,' *ina*, are interesting. The first is found also in Marovo, East New Georgia, in Choiseul, Vella Lavella and Malaita, and is common in Melanesia as a vocative. *Ina* shows the San Cristoval form of the commoner *tina*.

\* Sounds as in Baniata and Roviana.

—	Baniata.	Roviana.	—	Baniata.	Roviana.
Ashes	bufo	eba	Large	tebota	nomana
Bad	rivota	kaleana	Leaf	evo	elelo
Banana	wahu	hakua	Little	isita	hitekena
Begin	fiā	podolai	Louse	gutu	gutu
Belly	rai	tia	Man	finozo	tie
Bird	manono	kurukuro	Mat	ihuno	teqe
		tapuru	Moon	idi	sidara
Black	iqita	muho	Mosquito	roqo, imusu	roqo
Blood	vo	ehara	Mother	ina	tina
Boat	koaka,	koaka,	Mouth	ā	nuzu
	mora	mola	Night	hiu	bozi
Body	moqu	tini	No	au	lokari
Bone	minu	susuri	Nose	emo	isu
Born	oura	podo	Pig	bo	boko
Bow	bokara	bokala	Pray	vato	varavara
Butterfly	urifefe	pepele	Rain	rivo, oro	ruku
Child	ha	koburu	Rat	siro	kurezu
Coconut	hiso, hinjo	nohara	Red	arōā	zinara
	(nut)		Road	ē	sirana
	eno (palm)		Rock	heqa	patu
Cold (air)	beougougou	ibu	Root	aboso	karoso
Cold (body)	irinara	diana	Salt	(no word)	
Dead	uza	mate	Sea	fio, orono	lamana
Door	wafea	tuku tuku	Sing	gizo	kera
Ear	oqoto	taliā	Skin	zuo	kapu
Earth, soil	fensu	pepeso	Smoke	hia	tunaha
Egg	adena	vovoto	Soft	hisafa	malahoro
Face	roveni	isumata	Spear	seino	hopere
Father	mama, ai	tama	Spirit	uzi	tomate
Finger	onji	kakarutu	Spirit (Good)	Niuzi	tomate
Finished	tiqa	beto			leana
Fire	hiro	nika	Spirit (Bad)	Rivo uzi	tomate
Fire-making	zotia	ino			kaleana
Fish	igana	igana	Spittle	so	loro
Flesh	fafono	masa	Star	finofino	pinopino
Fly	urusu	dodoa	Sun	ui	rimata
Fowl	kokorako	kokorako	Sweet	imota	lomososo
Fruit	orou ve	vua hudā	Tongue	ani	mea
God	Tamasa	Tamasa	Tooth	nani	livo
Good	nita	leana	Tree	orono	huda
Hair	uozufu	kalu	Water	fio	kolo
Hand	obi	lima	(fresh)		(lomososo)
Hard	eqiti	ninira	White	tugava	keoro
Head	u'o	batu	Wing	gofona	tatapuru-na
Hot	miqota	manini	Wind	zu	givusu
House	va	vetu	Woman	gohe	barikaleqe
Knife	moite	magu	Yellow		meava
Lamp	hoi	zuke	Yes	io	uve
Language	hanaso	zinama			

## New Hebrides: Technology.

Wedgwood.

**The Use of the Loom in Santo, New Hebrides.** By Miss C. H. Wedgwood.

46

In his work on Primitive Looms\* Mr. Ling Roth gives, on p. 107, a map showing the probable route by which the Indonesian loom reached Melanesia. The most southerly island in Melanesia from which he records the use of the loom is Vanu Lava in the Banks Group. There is, however, evidence to show that in the seventeenth century true weaving was carried on in the island of Santo in the New Hebrides.

In 1606 de Quiros anchored in the Bay of S. Philip and S. James at Port Vera Cruz, which he describes as lying between the mouths of the rivers named by him "Salvador" and "Jordan." Writing of the natives with whom he there came in contact, he says†: "They cover their parts with certain cloths they weave." That he is using the word "weave" advisedly and not as a synonym for mat-making is shown by a later passage, which runs‡: "There were also seen . . . some moderate sized looms." He does not, unfortunately, make any further mention of these, nor give any description of them. Of the articles woven, de Quiros only records the loin-cloths, in the passage quoted above. While enumerating the uses to which the natives put the coconut palm, he says§: "Of the leaves they make sails for their canoes and fine mats with which they cover their houses." Negative evidence is always unsatisfactory, but the fact that he does not mention the loom in connection with the making of these sails and mats renders it not improbable that they were not woven.

Whatever may be thought of the veracity of such Spanish adventurers as de Quiros, there does not seem to be any reason to doubt his word here, though subsequent travellers, who called in at what is generally believed to be Port Vera Cruz, make no mention of the use of the loom in this place.

C. H. WEDGWOOD.

## Africa, South : Sociology.

Schapera.

**The Tribal Divisions of the Bushmen.** By I. Schapera, M.A.

47

In an article on "The Bushmen of the Kalahari" (*Science Progress*, No. 81, July, 1926, pp. 87-91), Professor E. H. L. Schwarz publishes a classification of the Bushman peoples which calls for some comment, especially as in this article Professor Schwarz has embodied the substance of many of his recent contributions to the periodical press in both Great Britain and South Africa.

Professor Schwarz, using both race and language as criteria of differentiation, claims to be able to recognise ten separate types of Bushmen. It is questionable whether any value can be attributed to the use made by him of these two criteria. What, for instance, are we to make of the statement (*op. cit.*, p. 87) that the language of the Bushmen is "an isolating one, the words consisting of clicks, snores and warbles in the throat, originating probably from a time before the human tongue acquired the nicer adjustments necessary for articulate speech"? Anybody acquainted with the Bushman languages and with the mechanism of the clicks (which are really implosive consonants) will at once dismiss this statement as worthless. Again, speaking of the appearance of the "Masarwa of the Makarikari," one of his Bushman types, Professor Schwarz says (p. 88): "The Gibraltar skull" "fits their physiognomy, except for the forehead, which has become pushed up either

\* H. Ling Roth, "Studies in Primitive Looms," Bankfield Museum Notes, Second Series, No. 10, p. 107. 1918.

† "The Voyages of de Quiros," trans. Sir Clements Markham. Vol. I, p. 265. Hakluyt Soc. Series 2, Vol. XIV.

‡ *ib.* p. 269.

§ *ib.* pp. 267, 268.

" by evolution from within or admixture from without, so they are probably related " to the Rhodesia (Broken Hill) man." This description is so inaccurate as to seem grotesque to anyone who has handled large series of Bushman crania, and may be dismissed without further remark.

When we come to consider specifically the ten types of Bushmen defined by Professor Schwarz we find the same lack of accuracy prevailing. The Bakalahadi (usually spelt Bakalahari), whom he includes as one of these types, are not Bushmen at all. They are generally looked upon as degraded Bechuana who have lost their cattle and have been forced by circumstance either to adopt a nomadic hunting life similar to that of the Bushmen or to serve as herds to the cattle-owning Bechuana. Their language is Sechuana and has no relationship to the Bushman languages. There is also no authority for the statement on p. 88 that " the Heikum are a lumpy " black race, considered by some to be crosses between the Qung and the blue-black " Berg Damara." Werner has shown fairly conclusively\* that in race, culture and language the Heikum are closely related to the Qung and must be regarded as belonging to the same branch of the Bushmen.

It would be easy to go on in this way and deal seriatim with the many inaccuracies in Professor Schwarz's article, but it is felt that a more useful purpose will be served by giving a classification of the Bushman tribes based on the results of the extensive researches which have recently been made on these people and by touching incidentally on various points of difficulty in the remarks made by Professor Schwarz. In formulating the classification that follows I have been very materially assisted by the great generosity with which Miss D. F. Bleek has rendered available to me the results of her noteworthy investigations on the Bushman languages.

In any attempt to classify peoples we may approach the problem from the three different aspects of race, culture or language, and it is fairly obvious that conclusions based on the consideration of any one of these aspects will not necessarily hold for both or either of the others. In racial characters no sharp divisions of the Bushman peoples can be defined. Reviewing the physical structure of the Bushmen generally we find that, although the northern tribes differ in certain respects from the southern, we have clearly to deal with one fundamental physical type throughout. It is impossible to draw any definite line between the northern and southern tribes, as there is a continuous gradation of characters, the type gradually becoming less pure the further north and east we go. The chief differences lie in the tendency of the northern tribes to greater stature, darker colour and better muscular development, as well as in a lengthening and heightening of their heads and faces. These divergent characters are undoubtedly due to the effects of racial intermixture with negroes, a process still in progress, and it is not surprising therefore to find that the north-eastern tribes, who have been longest exposed to this racial miscegenation and among whom may be included the Tannekhoë, Batete and Madenassena mentioned by Schwarz, should show on the whole the greatest divergences.

In culture also we find that all the Bushman tribes have fundamentally the same general mode of life, beliefs, ceremonial, social organisation, etc., so that we have to speak of a Bushman culture rather than Bushman cultures, but it is nevertheless possible to recognise at least two varieties of this culture. The southern tribes have been least affected by exotic influences and have also developed along special lines in certain respects, such as æsthetic culture in general ritual, and possibly also mythology, while the northern tribes show signs of having been influenced in technology and to some extent in beliefs by other peoples, and their culture has consequently been modified and has deviated somewhat from that of the southern

\* *Zeits. f. Ethn.*, Bd. 38 (1906), pp. 241-268.

tribes.\* No more particular discrimination can, however, be made, and we cannot therefore use culture as a criterion of classification.

It is when we come to language that we first find it possible to formulate a definite classification of the Bushman peoples, and the following classification must therefore be regarded as based on linguistic grounds only. It was customary at one time to regard the Bushmen as a very homogeneous group of people, with perhaps some slight local differences, but recent research by Passarge, Pösch and especially Miss Bleek, has shown clearly that they are divided into a fairly large number of groups or tribes, and that each of these tribes speaks a different language. These languages, however, are all of the same general character, although, owing to variations in phonetics, morphology and vocabulary, they may be classified into three different groups, to which, following Miss Bleek, I shall apply the names Southern, Central and Northern respectively.

The best known perhaps of all the Bushmen are those of the old Cape Colony, the people who, fifty years ago, could still be found in numbers along the belt south of the Orange River, fighting with intruding Korannas, Griquas, or white men. They formerly occupied most of the Colony, from the Kat Kop Hills in the west to Colesberg in the east, from the Achterveld in the south to the Orange River in the north; but to-day they have almost completely disappeared, though stray individuals may still be met with as servants in the employ of farmers in the north-western districts. They all spoke the same language with slight local variations. These are the people referred to by Professor Schwarz as "San, or Sanquas," which is the Nama Hottentot word for "Bushman"; they all called themselves |*xam-ka* / *Ke*, or |*xam* people, the word having no other significance than that of nationality. The word "Qhwaikhoë," used by Professor Schwarz, is merely the reduplicated form of / *Ke*, and his interpretation, "People of the Qhuai, or apron of leather thongs," is totally inaccurate.

Beyond the Orange River, in Griqualand West and Gordonia, was another tribe, similar in appearance and customs, but speaking a different language. They seem to have formerly occupied the territory extending from the Vaal River in the east to Rietfontein in the west, from the Orange River in the south to about the Molopo River on its westerly course in the north. They also have disappeared almost completely, and of the few who still survive the majority are farm hands in the Langeberg district. According to Miss Bleek they call themselves ||*y* / *ke* or "home people."

Eastwards, in the triangle formed by the Vaal and Orange Rivers, i.e., in the O.F.S. and Basutoland, we know that there was another group of Bushmen, which now is apparently extinct. A sketch of their language by Wuras, only recently published, shows that it was related to those of both the preceding tribes but different from either of them. They are probably the people of whom Arbousset gives such an excellent short description and some of whose folklore has been recorded by Orpen. Their tribal name is unknown. Arbousset says they called themselves "Khuai," but this is the same word as the / *Ke* already met with and simply means "people," while Orpen speaks of them as the "Maluti Bushmen."

Far away in the Eastern Transvaal, on the shores of Lake Chrissie, close to the Swazi border, live a few Bushmen, evidently remnants of a tribe that once roamed over the high veld of the Transvaal. Appearance and speech both show traces of much intercourse with the Swazi, but their language is clearly related to those of

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\* The statements made in this and the preceding paragraph are based on a detailed comparative study of the Hottentots and Bushmen presented by me as a M.A. thesis to the University of Cape Town in 1925. A résumé of the thesis was read at the Pretoria meeting of the South African Association last July and is being published in the Report of the meeting.

the tribes already mentioned. They have no true Bushman word by which to designate themselves, but use the term *Batwa*, applied to them by the Swazi.

In the waterless regions of the Lower Nossop, north of Rietfontein, live another group of Bushmen, some of whom call themselves |*auni*, and others |*xatia*. They speak two separate dialects of one language, a member of the same group of languages as those spoken by the tribes already mentioned.

Beyond the Molopo, in the south of the Bechuanaland Protectorate, Miss Bleek found a number of Bushmen, near the water-hole Kakia, in the service of the Bechuana. They, like the Lake Chrissie people, had no special name for themselves, but used the Sechuana word *Masarwa*. They are probably of the same group of Bushmen as those met with and described by Schultze near the water-hole Lehututu, a little further west. In the Upper Nossop and Auhoup valleys there are also still a number of Bushmen, who call themselves |*nu* |*en* and are called |*nusan* by the Nama. Their speech is very like that of the Masarwa at Kakia, and both may be regarded as dialects of one language. A third dialect of the same language is spoken by the !*Kô* or *Koon* at Naosanabis.

The languages of all these tribes are different from one another, but they have enough in common to make one regard them as members of one linguistic group. To this Miss Bleek, on account of its relative distribution, applies the name *Southern Group*.

From the water-hole Oas, however, the character of the language changes, and the Bushmen met with speak quite differently from those further south. Going straight north we come upon the ‡*Au* |*en* or *Auin*, called ‡*Aukwe* by the eastern Bushmen, ‡*Ausan* by the Nama, and *Makaukau* or simply *Kaukau* by the neighbouring Ovampo. They number about 3,000, according to Kaufmann, and inhabit the Kaukaveld of South-West Africa, extending from the ridge of hills skirting the Oas-Ngami road as far as Rietfontein N. in the east to about the 19° E. line in the west, and north as far as the road between the water-holes Gam and Garu. North-east of them live a small allied tribe, the *Sugnassi*, and to the north-west is found the great tribe of the !*Kú*, commonly called *Kung* or *Qung*. There are several subdivisions of this tribe, each of which has its own name, such as *Agau*, *Nogau* and *Kumgau*, but they all speak the same language. They inhabit the land between Lake Ngami and the Okavango River, their western boundary being not far from Grootfontein, and extend north into Angola, where they are usually known under their Bantu names of *Bakhankala* or *Basukuvera*. To the west and south-west of the Kung, between the river Omuramba pa Omatako and the Etosha Pan, live the *Hei* |*um* or *Heikum*. Their language is generally said to be Nama, but a grammatical sketch and vocabulary given by Werner shows that it resembles very closely the language of the Kung.

The languages of all these tribes are closely related, and they resemble the Southern languages in certain respects, but on the whole differ from them sufficiently to form a group of their own. This is the group of languages referred to by Passarge as *Kaukaugruppe*, but I prefer to use Miss Bleek's term *Northern Group*, as it indicates roughly the relative distribution of this group.

Still further north, in Angola, there appear to be other Bushmen, of whom, unfortunately, we know very little. One group is confined to the south-west corner of the province of Mossamedes, and is usually known as *Bakorocas*, a name obviously derived from the river Korocas, along whose banks it lives. Another group of Bushmen in the same region are the *Bakwisso*, whose name is of Bantu origin. It is very desirable that a good account should be obtained of these people, and especially of their languages, as they seem to be an offshoot isolated from the other Bushmen.

Between the Southern and Northern groups, in a sort of triangular wedge which starts at Sandfontein and broadens out rapidly over the Central and Northern

Kalahari, we come upon tribes speaking languages somewhat different from those of either the Southern and Northern groups, *but allied to the Hottentot languages*. The significance of this relationship, which was first pointed out by Pösch and has been established in vocabulary by Miss Bleek and in morphology by the writer, and its probable bearing on the question of the affinities of the Bushmen and the Hottentots are of great importance, but cannot be discussed here. From the Oas-Ngami road in the west, to Palapye in the east, and extending beyond the Kwando and Zambesi Rivers in the north, there are a number of tribes with different names and different languages, all of which, however, are clearly related.

At Sandfontein, in close proximity to the Auin, live the *||Aikwe*, sometimes called *Naron*, while a little farther north and east as far as Lake Ngami are the closely-related *Tsaukwe*, *Tsonokwe*, *†Amkwe*, *!Ginkwe* and others, whose names the *||Aikwe* know and whose speech they can understand. It is not unlikely that all these "tribes" speak dialects of one language rather than different languages, but it is impossible in the present state of our knowledge to assert this definitely. Farther north, in the marshy region which extends from Lakes Ngami and Linjati in the south into the Caprivizipfel and beyond into Angola in the north, live the *|tannekwe* or *Tannekwe* ("Tannekhoë" of Schwarz), who are subdivided into the *Bugakwe*, *†Garikwe*, and *†Gokwe*. East of them and extending into Northern Rhodesia live the *Hukwe* and *Galikwe*. These are the people referred to by Schwarz as "*Madenassenas*," a name which is of Bantu origin. In culture and physique they differ somewhat from the *||Aikwe* group and have been considerably influenced by the Bantu, but their languages clearly belong to the same group. South-east of Lake Ngami, along the Botletle River, live the *Tserekwe*, *Kabakwe* and *Dukwe*, who correspond to the "*Masarwa* of the Makarikari" of Schwarz; farther east, in the neighbourhood of Lake Kumadau, are the *Matete* ("*Batete*" of Schwarz) and *Mahura*, whose names are clearly of Bantu origin; while, finally, in the Tati district, on the western border of Southern Rhodesia, are still another group of Bushmen, whose name is apparently *Hiechware*, but who generally call themselves and are known as "*Masarwa*," which, as I have already indicated, is simply the Sechuana word for "Bushmen."

All these tribes speak languages that are obviously closely akin, though the exact nature of their relationship has still to be determined. It is convenient, therefore, to regard them as forming a third great linguistic group. Passarge calls it the *Ngamigruppe*, but this name is too local. Miss Bleek's name, *Central Group*, may be provisionally adopted as indicating its distribution relative to the Southern and Northern Groups, though I should prefer to see the name *Kalahari Group* adopted.

There is another important group of Bushmen of whom mention should be made, viz., the inhabitants of the southern parts of South-West Africa. Their language is said to be Nama, and they are often regarded as degenerate Hottentots who have lost their cattle and have taken to a nomadic hunting and collecting life. The little that we know about their social organisation shows, however, that they are divided into hordes like the Bushmen, while their material culture and mode of life generally are so like those of the Bushmen that I feel they must be looked upon as true Bushmen, rather than as degenerate Hottentots. In the region between Naukluft and Grootfontein S. live the *†ganin*; south of them as far as Bethany live the *|kona*; while to the west of both these groups, in the true Namib desert, live the *||geinin*. Farther south, in the Huib plateau just north of the Orange River, live the *|huini*, and in the region round the junction of the Great Fish and Orange Rivers live the *||obanen*. It was among these last two tribes that Hahn claimed to have found the practice of the Bushman pictorial art still surviving in 1879, which seems to confirm the theory that they are Bushmen.

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I. SCHAPERA.

## REVIEWS.

Africa; Ethnology.

*The Golden Stool.* By E. W. Smith. London: Holborn Publishing House, 1926. Pp. 325. Price 5s.

As its second title shows, this work deals with "Some aspects of the conflict of cultures in Modern Africa."

This is a subject which is at present exercising the minds of many serious students of world affairs, also others who are actuated by purely political motives. It is no new problem, but has probably been brought into the limelight to a greater extent during the last two years by the declaration of the so-called "dual policy" approved by the present Government for our East African dependencies. The importance of the question to the Empire is beyond all doubt. The whole subject in its many aspects is discussed by

Smith.

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the author in this work, which can be confidently recommended as the opinion of an ex-missionary, who has brought to a consideration of the problem a deep knowledge of the psychology of the native, obtained at first hand in the field, an acute mind and, equally important, a great breadth of view.

He begins with an eloquent plea for greater understanding, basing his thesis upon the apposite example of the past history of our relations with the Ashanti people and the well-known story of their Golden Stool.

Great stress is rightly laid upon the tremendous part which religion, even if it is of a primitive character, plays in the life of an African tribesman, and it is believed that a realisation of this vital factor may be the means of revolutionising

the old traditional attitude of missions towards so-called heathen superstitions.

The disintegrative effect of the activities of various sections is fairly dealt with and analysed; these activities can, as the author points out, be divided into three classes, viz., that of the government of the country, that of the missions, and that of the commercial and planting community.

It is not easy to gather whether the author, after long consideration of the question, is pessimistic or the reverse as to the future; if his own ideals could be translated into action there is little doubt as to a successful issue. The factors are, however, not altogether amenable; the outlook of the essential parties is diverse. Some are altruistic, e.g., the missions; the Governments also are altruistic, but at the same time insist on material progress; the key note of the native races and also the colonists is material gain.

Home opinion sways between gushes of altruism and insistence on an increasing supply of raw products for our manufactures.

The conflict of the views of the various sections is apt to result in a series of hotch-potch compromises, instead of a steady policy decided on philosophical grounds. The result being that we continue to drift we know not whither.

The whole question boils down to the issue as to whether the conscientious implementing of the principle of trusteeship can be worked out as a practical policy—that is to say, can the ideal be pursued and the material progress of the various sections continue.

Those to whom our social organisation is anathema deride the possibility; others, who have faith in the genius of our race, are optimistic. We venture to believe that the author belongs to the latter school.

This work should be widely circulated in Africa, as well as among our home people, for the more who are influenced by this well-balanced survey and who realise the magnitude of the issue, the better it will be.

From the point of view of the anthropologist it must be welcomed, for it is an answer to those who have been wont to class all enquiry into primitive beliefs and culture as an academic amusement of little practical value. In the exploration of measures for solving the complex problem the anthropologist may, if he also possesses a practical outlook, play a great part.

C. W. H.

Assam: Ethnography.

Mills.

*The Ao Nagas.* By J. P. Mills, I.C.S. Published by direction of the Government of Assam; Macmillan & Co. Pp. xviii + 500. Plates 32, maps 2. Price, 30s.

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The Nagas of Assam are no mean citizens of the Empire they served so well in their Labour Corps in France, and it is right that British readers should know of them. They number over 220,000 in all, and of these over 30,000 are Aos.

Mr. Mills's book (the third on the Aos published during the past two years) is an important contribution to the study of that puzzling culture complex which separates India from China.

The vicissitudes of exogamy among the Nagas are instructive. The Ao social system is more intricate and stable than that of their neighbours. They are divided by language into three groups. Of these the Chongli are the youngest and best organised; they have three phratries, the Pongen, the Lungkam and the Chami, and in each phratry there are from ten to sixteen clans. The Mongsen likewise have three phratries, "corresponding" each to one of the Chongli phratries, but the Mongsen phratries have no names and the clans are fewer. In each of these groups the phratries are exogamous; nor can a Chongli marry into a Mongsen phratry "corresponding" to his own or *vice versa*. The Changki group is the oldest and most mixed; it has no phratries, but of the eight clans named, four form a single exogamous unit.

Ao polity, however, is not a matter of clans and phratries. In war the village is the unit, in social matters the "khel" or ward, into two or more of which most villages are divided. Each "khel" has its own council, and in the settlement of disputes all parties shout at once, and councillors too join in; yet a satisfactory decision is usually arrived at, and few cases have to go to Court. Chongli councillors are poorly requited, for on them devolve, on retirement, the unpleasant duties of corpse-disposal.

Of the daily life of the Aos, their religion, their "feasts of merit" and their folk-tales, Mr. Mills gives full details. His account is enlivened with the kindly humour of one who understands and values his friends. He warmly defends them against their detractors who dub them sulky, quarrelsome and cowardly, and, naturally, he deplores their deculturation under missionary influence, a theme which Professor W. C. Smith, in his book on the Aos, has pressed so strongly. Mr. Mills gives point to the Professor's warning by concrete facts, and his apprehensions

are endorsed by Mr. H. Balfour in the useful preface which he contributes. Fortunately the Assam Government are alive to the importance of studying the culture of the folk whose destinies they hold in trust. It is impossible to overrate the administrative value of these Assam Monographs, and it is a pity that no other administration in British India has followed the Assam lead.

The value of this book is enhanced by Dr. Hutton's copious citations of cultural affinities between the Aos and other races of south-east Asia and the Pacific, and his bibliography of the Naga Hills. The typography and plates are excellent and the index is exceptionally full and well-arranged. Mr. Mills is to be congratulated on a very thorough piece of work.

F. J. R.

Caucasus: Archæology. Tallgren.

*La Pontide préscythique après l'Introduction des Métaux.* By A. M. Tallgren. Part II of "Eurasia Septentrionalis Antiqua." Helsinki (Helsingfors), 1926.

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The steppes of South Russia have probably varied only slightly in climate since the Gschnitz phase of the Ice Age; they are and have been nomad lands, and archæological remains are distributed in accordance with this fact. Low *kurgans* occur along river banks, and great ones especially near the Kuban and Terek, which seems to have been a sort of metropolitan area for reasons we can surmise—namely, its links with the sea and its links with lands south of the Caucasus as well as its relative fertility. The study of this area by Tallgren is a very thoughtful one that will greatly help future workers.

Tallgren will meet wide agreement with his suggestion that *ca.* 700 B.C. Scythians invaded the European steppe; he thinks they came from Asia, perhaps from Iran. Their predecessors in the steppe he identifies with the Cimmerians of legendary history and he brings forward a mass of archæological evidence from winged and socketed bronze axes, sickles, daggers and swords to show that these people came from Central Europe—probably Hungary—about 1200 B.C. The sword which Tallgren figures suggests Peake's Type E or Type D ("Bronze Age and Celtic World," 1922) and it is noteworthy that Peake suggests a wide distribution for Type D, with Hungary (17 examples) as its probable original home. Tallgren's example is from Zavadinsty, Podolia—that is, from the western end of the south Russian steppe—and Peake used this very example, which he classifies as Type E, to suggest an irruption of people from the west into the steppe from the

loess zone of Hungary soon after 1200 B.C. This agreement in interpretation is obviously important.

When we study earlier movements we find opinions more in conflict. It will be best, first, to give a short statement of Tallgren's views. He notes the importance of the stone battle-axe both in the southern steppe and in N.W. Europe, as also in Central Russia (Fatyanovo culture). He thinks, with Kossinna and Åberg ("Typologie Nord. Streitäxte," 1915), that owners of these axes from Baltic lands came into the steppe in the earlier half of the second millennium B.C., that they built up an important centre in the Kuban and developed a copper culture influenced by Asia Minor and Mesopotamia, and that they began their great career by overwhelming the Tripolje culture (near Kiev). In dating thus he agrees with Farnakovsky ("Mat. Arch. Ross.," xxxiv) and dissents from both Rostovtseff ("Iranians and Greeks in S. Russia," 1922) and Gordon Childe ("Dawn of European Civilization," 1925), who, whatever their views of the origins of the Copper Culture of the Kuban, are inclined to date it well back in the third millennium B.C. Perhaps Tallgren lays more weight than he realises on a flat dagger with a broad rounded copper blade from Maikop, identifying Cretan influences thereby, and giving a date 1700-1500 B.C.

This view suggests a number of difficulties. Firstly, it allows much less than a millennium for an extraordinary evolution of styles from those of these early invaders to those of Tallgren's Cimmerians if they came from the west, for, be it noted, Tallgren seems to argue that they arrived fairly rude and ignorant and built up the Kuban copper culture in the Kuban district itself. Next, it is difficult to accept the flat dagger, *of copper*, as an indication of a link with the late Minoan of Crete. Moreover, Tallgren gives a number of examples of "idols" from Kherson, Oul in the Kuban area, and Daghestan (Terek area), and these are acknowledged generally to be of Cycladic affinities; these objects, further, are distinctly early, and, though they may have lingered on in S. Russia, they suggest maritime links between the Ægean and S. Russia in the third rather than in the second millennium.

Recently, however, Langdon, Woolley and Mackay (*e.g.*, "Excavation at Kish," Chicago, 1925) have brought important new evidence to bear on the question by finding metal axes with shaft holes in Mesopotamia in such associations as to suggest a date about 3000 B.C. and certainly before the middle of the third millennium. Tallgren realises the Sumerian and Anatolian affinities of many objects of the Kuban copper-

culture, but the newer finds help materially to date that influence, which seemed to be undatable, between 3000 and 1500 B.C. previously. Childe, from whose views Tallgren disagrees very respectfully, has already pointed out the great improbability of the separate invention of the stone battle-axe in N.W. Europe and the copper battle-axe in Mesopotamia, both with shaft-holes and other details.

The alternative hypothesis is to suppose that the copper battle-axe spread from Mesopotamia, or wherever else in the East may have been its early home, and that it was increasingly copied in stone as the idea spread into Europe west of the steppes. Its distribution in Europe is along the loess belt south and west of the Pripiet Marshes and along to Jutland, and it also occurs in the British Isles, the Channel Isles and Brittany. It is a feature of the Fatyanovo culture of Central Russia north-east of the Pripiet Marshes and the Dnieper tributaries. It penetrated into N. Italy as well. It seems at least possible that features in N.W. Europe, which have at times been considered primitive, are rather to be interpreted as peripheral; in studies of culture movements these two conceptions need to be weighed against one another continually.

It is true that Kossinna, the protagonist of cultural origins in the S.W. Baltic region, was inclined at one time to think of warriors from that region getting right away down into S.W. Asia in very early times, but few would follow him in that view.

Probably Tallgren gave some weight to the hypothesis of Åberg which develops with more exactitude of observation the ground idea of Kossinna that the battle-axe originated in the S.W. Baltic. Åberg seems to think that the axe arose from a pebble with a deep groove around its middle, the grooved portion being perforated by man to form the shaft hole. R. A. Smith, however, from a study of British battle-axes, is inclined to place those with deeply concave proximal and distal faces quite late and seems to be more in favour of the origin of the stone battle-axe from a metal model, though it would have been going beyond the scope of his recent paper in *Archæologia*, lxxv, to have stated that. He draws attention to the opinions of Stjerna, Brogger and Björn as to the knowledge and even, perhaps, the use of copper in Scandinavia in the passage-graves period—the period notable for battle-axes in that region. In Britain they come rather later and have clear Bronze Age associations. Dr. Brogger also holds that the stone battle-axe is derived from a metal prototype.

Admitting, therefore, the difficulty of the

question and the insufficiency of evidence, it seems permissible to use as a working hypothesis the idea that somewhere, probably not very far from the S. Russian steppe, as Childe suggested, the stone battle-axe evolved from a copper model that was known through contacts, direct or indirect, with the Sumerian civilisation of the beginning of the third millenium. The Sumerian-Anatolian links with the Kuban Copper Age are universally accepted.

A further working hypothesis may be ventured. The riverine lands of antiquity suffered great disturbances about the middle of the third millenium B.C. when the empire of Sargon of Agade and the Sixth Dynasty of Egypt fell (Breasted-Meyer, "Chronology"). It seems probable that men with camels and horses came into Mesopotamia, though neither animal became established in Egypt till much later on. Indeed, perhaps it was dominion over camel and horse that brought the great change in the Egypt of the middle of the second millenium from a state on the defensive to a far-flung empire with columns working far away in Asia; the Nile Valley itself is not a good place for rearing these animals; and Egypt still imports large numbers from Syria, etc., where they grow with tougher sinews and better constitutions. If the ancient world was widely disturbed somewhat before the middle of the third millenium, and many culture contacts were being made as a result, then may not the irruption of new peoples into the S. Russian steppe be one of the many repercussions of the troubles of the time? For hypotheses as to the origins of such new peoples it may be well to wait a little, though the possibilities are in favour either of the Transcaspiian steppe or beyond, or of Anatolia, with a route, perhaps, around the ends of the Caucasus. It is significant that the age of disturbance of the riverine lands and of the landways of the ancient world is at the same time the period of budding forth of Aegean maritime life and of development of Hissarlik II and Early and Middle Minoan Culture, and this makes it at least not less probable that the "idols" of Malkop may be of great value in giving an approximate date to the Kuban culture.

H. J. F.

H. J. E. P.

United States: Folklore.

Puckett.

*Folk Beliefs of the Southern Negro.*

By Newbell Niles Puckett, Ph.D. 51  
University of North Carolina Press (London: Humphrey Milford), 1926. Pp. xiv + 644: 9 plates. Price 22s. 6d.

As a source book this volume should be of permanent value. It is rich in material

which will be welcome to all students of folklore, for Dr. Puckett has not only incorporated in it all the data collected by him from more than four hundred informants, but has drawn freely from collections previously published. The result is an extensive array of interesting details about the superstitions, beliefs and practices of the American negro. The chapter on "Voodooism and Conjurat[i]on," especially the pages on the "Hoodoo doctor," are particularly valuable and provide one of the best accounts available of this very interesting aspect of American negro life.

But as a theoretical study the merit of this book is disappointingly small. Its aim, the author tells us, is not merely "to present 'Southern negro life' but also 'to show their origin whenever possible and to indicate some of the general principles governing the transmission and content of folklore in general.'" It is to be regretted that with the material at his disposal he has not dealt more satisfactorily with this latter aspect. The American negro, with his African antecedents on the one hand and the European environment in which he has lived so long on the other, affords an excellent opportunity for determining how strongly native rituals and beliefs may persist under the influence of an alien *milieu* and in what essentials they are modified by it. Dr. Puckett recognises this, and throughout his book attempts, by reference to both African and European folklore, to show what elements of the American negro lore may be regarded as native and what as taken over from the Europeans of the Southern States. But his comparisons, though suggestive, are not searching enough to be convincing, and afford no real evidence for historical connection. A more thorough analysis than is given by him, both of the ancestry of the negro slaves and of the European influences to which they have been subjected, is necessary before it will be possible to determine to which source any elements of their folklore must be attributed.

Another disappointing feature is the lack of any discussion of the rôle played in the social life of the negroes by their folklore. Every element of culture is of some importance to the life of the people among whom it is found, and it is not sufficient for the student to regard folklore as a mere "survival." The author would have added much to the importance of his book by giving more consideration to the attitude adopted by the negro to these beliefs and practices and the extent to which his normal behaviour is influenced by them. I. S.

France: Archæology.

Schaeffer.

*Les Tertres funéraires préhistoriques dans la Forêt de Haguenau: I.*

52

*Les Tumulus de l'Âge du Bronze* by A. E. Schaeffer. Pp. 277+15 plates, 2 maps and 75 text figures. Haguenau, 1926.

The Bronze Age of Central Europe is gradually being reduced to the same orderly condition which the Neolithic period has presented for nearly ten years. We have recently reviewed the valuable contribution made by Dr. Kraft in his study of the barrows of the Swabian Alb. The present study of the famous cemeteries in Alsace brings the work of systematisation nearer home and establishes a lighthouse on the further shore of that hopelessly chaotic sea that separates the *terra firma* created by German and Bohemian archæologists from our own little patch of solid ground.

The form of M. Schaeffer's publication of the material excavated by the late M. Nessel represents a model—one might almost say an ideal. The author has illustrated with excellent line drawings every single tomb group from some five hundred barrows, has then collected the main types of axes, daggers, pins and bracelets in group figures and has finally added photographs of almost every vase. This is the perfect method of publication, but it takes immense patience—Schaeffer had drawn all the objects himself—and much money.

The first part of the text describes the tumuli and their contents. The second gives a very sane and illuminating analysis of the material. Schaeffer's chronological conclusions, though presented in a less ambitious form, agree on the whole very well with Kraft's. For the rest, the following points deserve especial notice for their bearing on wider issues. Our author unhesitatingly affirms that the custom of heaping a barrow over the grave and probably the rite of cremation were introduced into Alsace by our friends the corded-ware folk. All the models for the earlier bronzes came from the Danube basin, which continued also later to provide the guiding stimulus; at no period did Gaul make any contribution and Switzerland only at the end of the Bronze Age. The distribution of the barrows is only explicable through the recognition of a dry Continental period. The amber found in the graves was probably imported from "the east or the south-east." The first three inferences are indisputable (the second might have been reinforced by reference to the Hungarian and ultimately Mycenaean origin of the one "heart-shaped" pendant that Schaeffer takes for Bavarian). The origin

of the amber seems to need further investigation. At any rate, the precious substance, fossil resin, is commoner in this part of the Upper Rhine than we had thought, and de Navarro's map will have to be brightened with several more red crosses.

It should be noted, in conclusion, that much of the material here published, especially the magnificent "carved" vases, possesses real æsthetic merit, to which the photographs, supplemented by the line-drawings, do ample justice. The appearance of the promised second volume on the Early Iron Age barrows will be eagerly awaited.

V. G. C.

Africa, West: Ethnography. Cremer.

*Les Bobo (La Vie Sociale)*. Documents recueillis et traduits du Bobo. 53  
Par Jean Cremer. Co-ordonnés, mis au net, et accompagnés d'une Préface et d'un Chapitre introductif par Henri Labouret. Paris: Paul Geuthner, 1924.

Dr. Cremer's untimely death prevented him from completing what would doubtless have been a monumental work on the Bobo of the Upper Volta. His notes apparently were mainly in the form of texts written in the Bobo language from the dictation of a certain number of native informants. We must be grateful to M. Labouret for selecting some of these texts to illustrate the social life of this people. The work necessarily suffers from the method which, while it guarantees the *bonâ fides* of the accounts, omits any explanation and amplification of many interesting customs and beliefs that are mentioned. An account of the social organisation of the people would have added greatly to the value of the material that Dr. Cremer has accumulated. It should be noted that the original manuscripts are to be deposited in some public establishment for the benefit of students.

The houses of the Bobo are rectangular and composed of several rooms, and the villages are divided into four "wards" (*quartiers*), occupied respectively by cultivators, blacksmiths, musicians, and the Fulani. It would appear that the cultivators look upon themselves as true Bobo, but who the musicians and blacksmiths are is not suggested, nor would it be wise to assume that the "wards" form endogamous local groups, though some of the customs mentioned point to this conclusion. Whatever the social significance of these local groups may be, each has its own chief, whose duties are both political and religious. He is spoken of as the "Old Man," but it is not said whether on his death his successor, who may be "younger brother,"

"cousin," or "nephew," must be already of advanced years, nor from these terms given can it be known whether succession is matrilineal or patrilineal, but from the fact that the son is not mentioned it would appear to be the former. The extended family, within which work is communal, is probably patrilineal; each member of it, male and female, is free to hold personal property. However, a man must make an offering to his maternal uncle before he may undertake any commercial transaction for himself. In all ceremonies the musicians and the smiths play an important part, especially the latter. It is interesting to note that in addition to the usual animal sacrifices a dog is sometimes killed and eaten ceremonially; this is conspicuous in the marriage ceremonial, and in the funeral feast for an old man. The custom of killing and eating dogs is common in West Africa, and extends as far east as the Zande, but, so far as I am aware, is unknown in East or Central Africa.

The ceremonies connected with marriage and death are described in detail, and are particularly interesting. From the various accounts given it appears that the girl has considerable liberty in choosing a husband. A betrothal may have been publicly recognised and the prospective husband may have made payments and worked for the girl's family for three years (during which he may visit the girl, though he may not object to her intimacies with other men), yet even after the last sacrifice of a dog she may elope with another. No mention is made of age grades or the possibility of sexual liberty being regulated by such divisions, but the description of the marriage ceremony suggests this possibility. During the three years of service and courtship that is customary there is no restriction to the intimacy that is allowed, but a child should never be born while the girl is still in her father's house, and should such a thing happen sacrifices are necessary. The actual marriage begins by a number of the bridegroom's "friends" capturing the bride and bringing her to a house in her husband's ward. But here the husband may not put in an appearance, and the girl lives with these friends for a period which varies in the different accounts from one night to a few weeks or months, or till she becomes pregnant. Then she undergoes a purification ceremony, her own husband prepares a house for her, and she goes to live with him. I do not know of any African marriage exactly like this, but where there are age grades there are many customs which suggest

interesting parallels. Among the Akamba and Herero the marriage must not be consummated on the first night, while the rights of the husband's age-fellows among the Masai and kindred peoples are well known; these rights are not allowed to the Dinka, but the age-fellows pay ceremonial visits to the bride, and the bridegroom is supposed to obtain the consent of his age-grade mates to his marriage.

It will be seen how many problems are raised by this book, and how great a loss Anthropology has sustained by Dr. Cremer's death.

BRENDA Z. SELIGMAN.

Africa: Linguistics.

Welmans.

*A Preliminary Study of the Nzima Language.* By C. W. Welman, M.A. **54**  
The Crown Agents for the Colonies.

Administered as a portion of the Axim District of the Gold Coast, the people who speak Nzima may or may not be a section

of the Ashanti. The author finds some similarity in words; but two traditions, at variance with each other, as to Ashanti origin. Both the Wesleyans and Roman Catholic Mission have been in touch with the people; but, owing to Fanti prejudice, the language has not been systematically written down, nor has more than a tentative reading primer been attempted. Reference to Nzima will be found in Migeod's languages of West Africa. Mr. Welman, however, did not find complete agreement with the phrases as he heard them. The author admits lack of time to study the tones and the value of this little book is proportionately weakened, though the ethnological and grammatical notes may prove of considerable value. Like all languages of this area, speech is rather by ear and tone than by clearly defined grammatical rule. Use is made of the International Phonetic Script, a matter of great gain to the student.

W. A. CRABTREE.

## CORRESPONDENCE.

Archæology.

Forde.

**The Excavation of the Five Knolls, Dunstable.**

*To the Editor of MAN.*

DEAR SIR,—The counsel of perfection which Dr. Fox gives us in his letter to MAN (March, 1927, 43) was not so necessary for our scientific salvation as he seems to have assumed. **55**

We propose to explore the Dunstable site completely, but this will take several years; after that a full report will be issued. The report of our finds last season was published because we thought, like Dr. Fox, that they disclosed interesting results. An archæologist of Dr. Fox's standing should surely have informed himself more fully of our programme before attacking one of the few University student societies actively interested in archæological research.

Yours faithfully,

C. DARYLL FORDE.

Archæology.

Rickard.

**Meteoric Iron in Antiquity.**

*To the Editor of MAN.*

SIR,—Recent study of the use of iron in antiquity has forced upon me the conviction that no real progress in our knowledge of the subject can be achieved until we are able to distinguish between celestial and terrestrial iron, between the meteoric and the man-made metal. For example, the best book on the subject, issued recently by Mr. J. Newton Friend, of Birmingham, still leaves us in a fog. **56**

He does not face the problem of the piece of iron found within the Great Pyramid, and alleged to be contemporaneous with it, or the equally obscure origin of the piece of iron found by Petrie in a grave at Abydos, both of which now rest in the British Museum. Here I may say that both of these ancient pieces of iron were tested recently, at my suggestion, for nickel, and traces of nickel were found, but no quantitative analysis was made, nor was the enquiry—forgive me for saying so—taken as seriously as it deserved. We are told that the industrial use of iron in Egypt began in the days of Rameses II, or, say, about 1250 B.C. Between that time and the age of the Great Pyramid we have about 1600 years. Is it believed that man, having learned how to win iron from its ore, would wait 1600 years before he smelted it in quantity for his industrial use? If iron was costly and rare in the days of Hammurabi, was it because iron ore existed in small quantity, or because meteorites are sporadic in distribution? If the use of iron in the eastern Mediterranean began shortly before the Homeric period, what are we to make of the specimens of much earlier date found in that region? I suggest that they should be analysed to determine whether they are of meteoric origin. The presence of nickel (averaging about  $7\frac{1}{2}$  per cent.) in meteorites may not be a decisive criterion, because some iron ores contain that metal, but the presumption that a nickeliferous iron is of meteoric origin can be checked

by determinations for cobalt and copper, both of which, in small proportions, are normal to meteorites, and not to iron ores.

Archæology and Pre-History will gain greatly from precise information on this matter. It seems strange that the requisite tests have been postponed so long. I am aware that the curators of museums do not like to see their specimens mutilated, but a sample can be taken without spoiling the specimen, and, assuredly, so long as we do not know the composition of a metallic relic it remains only a curiosity; its informative value remains small.

While urging the chemical analysis of specimens of ancient iron, I venture to suggest the need likewise of testing all alleged ancient bronze relics, to ascertain if they are not copper. The Gudea figurines were accepted for many years as bronzes, until proved to be copper. Finally, having ascertained whether the coppery metal is bronze or pure copper, it will be well to subject the specimens of copper to microscopic examination for the purpose of discovering whether the copper is native metal or the product of a smelting operation.

The inclusion of minute particles of slag will usually be the criterion.

If, then, by scientific method we distinguish between celestial iron and man-made iron, between bronze and copper, between native metal and cast metal, we shall throw a light upon the culture of primitive man whereby the whole subject of the early history of the race will be clarified.

Only to-day I read in a standard book: "That iron was known in Egypt at least as early as 3500 B.C. is considered certain." What does that mean?

Yours faithfully,

883, Mission Street, T. A. RICKARD.  
San Francisco, California.

[It may be pointed out that a committee of Section H of the British Association is investigating the character and composition of early Sumerian copper and bronze implements, etc., by means of tests such as are suggested by Mr. Rickard. A number of analyses have already been made, and will be published in a report of the committee in due course.—Ed.]

### ANTHROPOLOGICAL NOTES.

*The Frazer Lecture for 1927.*—The **57** Frazer Lecture for 1927 was delivered in the Art Theatre at Cambridge on 2nd March by Dr. R. R. Marett, who, taking as his subject "The Diffusion of Culture," criticised the methods of Prof. Elliot Smith and the "Diffusionist" school. On the evening of March 1st, Sir James and Lady Frazer entertained a large number of friends to dinner in the Combination Room of Trinity College, Cambridge, when advantage was taken of the occasion to pay a remarkable, and indeed unique, tribute of admiration and respect to the venerated author of "The Golden Bough." The health of Sir James was proposed by the Rev. Dr. Nairne, and, after Sir James's reply, Prof. Rudler spoke on behalf of the learned world of France. Speeches followed from Lord Crawford, as Chancellor of the University of Manchester; Prof. E. Gardner, Mr. H. J. E. Peake, as President of the Royal Anthropological Institute; Capt. Pitt-Rivers, on behalf of field-workers, replacing Dr. Malinowski, who was prevented by illness from attending; the Rev. E. W. Smith, on behalf of missionary and other workers in Africa; and Sir Frederick Whyte, on behalf of India. "The Frazer Lecture and Lecturer" was proposed by Dr. Seward, Master of Downing, and Dr. Marett replied. Sir William Boyd Dawkins in proposing the health of the Chairman, Mr. E. N. Fallaize, said that the name of Sir James Frazer

would go down to posterity coupled with that of Darwin, each as the great pioneer of systematisation in his respective field. Letters of regret at their inability to be present were received from Lord Balfour, the Duchess of Atholl, Mr. Edward Clodd, Prof. and Mrs. Seligman, and many others.

An exceptional opportunity for the comparative study of folk-dances will be offered by the festival to take place at Bayonne on April 27th and 28th. It is being organised by the Musée Basque de Bayonne. A team of fourteen dancers of the English Folk Dance Society will take part in the festival and will give two performances, one at the annual ball in aid of the funds of the Musée, and the second on the afternoon of the following day, when the English dancers will dance in alternation with teams from the Basque provinces of La Soule, Labourde, Basse Navarre, and Guipuzcoa. As some of the dances from these provinces, each of which has its own tradition, are of a very primitive type, yet in certain features present resemblances to some of our own folk-dances, their presentation at the same performance should be highly instructive. The English Folk Dance Society's party, which will include, in addition to the dancers, any members of the Society and their friends who wish to avail themselves of this opportunity, will leave for Bayonne on April 26th.



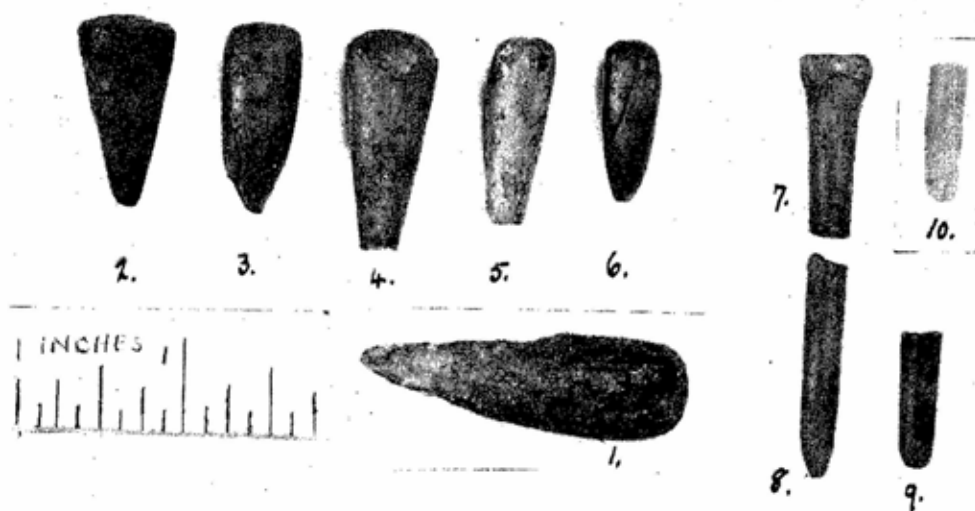


FIG. 1.—RAINSTONES.



FIG. 2.—POT IN WHICH  
RAINSTONES ARE KEPT.



FIG. 3.—THE RUDU, GENERAL VIEW.



FIG. 4.—RUDU OR SACRED GROVE AT MADI.

MADI RAINSTONES.

## ORIGINAL ARTICLES.

## With Plate E.

## Africa, East: Religion.

Rogers.

**Notes on Some Madi Rain-stones.** *By F. H. Rogers. With Plate E.***58**

The following notes are in no way complete and deal only with the Rain-stones of three areas. They may serve, however, to throw light on some points hitherto obscure, or serve as a basis for further inquiry.

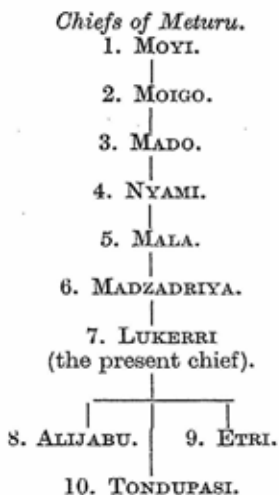
**METURU** (= "Higher Meto"—the country comprising the series of ridges running N. from Mt. Otze, near Dufle on the Nile).

At present there are two sets of Rain-stones in use in Meturu, viz., a highly-prized set of four and a further set of ten. The former we shall designate as set No. 1 and the latter as set No. 2. Set No. 2 is the subject of Pl. E, Fig. 1.

For convenience of reference a list of chiefs of Meturu is given alongside.

(A) *Origin* (Set No. 1).—These are said to have been brought originally by Moyi from the Bari country. He appears to have been a refugee from Bari,

having been driven out by his "brother" Vundru, who was jealous of Moyi's numerous offspring. But whatever the real reason for his flight may have been, Moyi brought away with him four conical pieces of quartz and alleged that they had the power of affecting rain. He settled in Metuli (also part of Meto) at Urutse, near the Kaiyu river (present Uganda-Sudan border) and made friends with one Meri, who lived near by, on the River Lifo. About the time of his coming there was a good deal of rain, and Moyi gave it out that this was on account of the stones which he had brought with him. The local chief, naturally enough, wished to obtain possession of these wonderfully endowed stones; but Moyi refused to part with them, and by degrees established himself so thoroughly in the Chief's good graces that he was given charge of a neighbouring area Izi, in Meturu, to the S.E. of Metuli, and near the site of the original Meturu rest-house.



Moyi's grandson, Mado, ultimately established himself as an independent chief over Meturu, breaking away from the overlordship of Metuli, and his grandson Mala still further extended his influence by taking in the people of Awokwe and Mt. Otze. Mala's son, Madzadriya, grew up, but pre-deceased his father, so that the chieftainship, on Mala's death, was held temporarily by Awoko till the present chief, Lukerri, grew up and was able to take it over for himself—on each occasion the custody of the Rain-stones was assumed by the succeeding chief.

Set No. 2 (*v.* Pl. E, Fig. 1).—In addition to the four stones referred to in the foregoing, there are ten others in Meturu. They have been found from time to time during the reign of the present chief, in paths or while clearing the ground for planting. They are also much venerated, and on account of their shape and smoothness are considered to have been specially moulded in some way that present-day people cannot account for, and therefore "God" must have done it; hence their special powers. Nos. 7, 8, 9 and 10 are clearly parts of quartz lip-ornaments, of the kind which have been superseded by the spikes of glass that are worn to-day, screws being used frequently as a substitute.

\* The word used was "Ndugu" (Sw = brother), but it is used to denote any close relation of the same generation.

(B) *Description and Custody.*—Set No. 1 is similar to the set illustrated under Laropi, and all are of quartz, one being called "male" and three "female." They are much feared, and contact with them is avoided so far as possible. Except on special occasions, they may only be safely handled by boys or old men; that is to say, persons of maturity would be adversely affected in their relations with women, so that, although the stones are *nominally* in charge of the reigning chief (or—when the Government has found it necessary to appoint someone of another family to be chief—some other member of the rain-making (hereditary) family), in effect, he deposes someone else to guard them and to carry out the rain-making ceremonies when necessary.

At Meturu the stones are looked after by the present chief's mother, by name Tsumuri, to whom they were entrusted by Mala, she at the time of Mala's death being the head-wife of his son Madzadriya. It is anticipated, when the time comes, that she will be succeeded as guardian by Tigbu, the head-wife of the present chief, Lukerri.

Lukerri's son by Tigbu, a lad of about 14, named Alijabu, is now being instructed in the use of the stones and has not been sent to school, although his younger half-brother Etri (mother Reya) is being educated, and may even succeed his father as chief; but (Lukerri tells me) whoever actually succeeds him as chief (in the eyes of the Government), *i.e.*, Alijabu, Etri or Tondupasi, the first-named will be the official rain-maker.

The stones are kept in a pot, which is placed in a small hut near Tsumuri's own. The stones' hut is usually unoccupied, but if additional space is required for guests children may be sent to sleep in it.

Plate E, Fig. 2, shows also the pot in which the stones of set No. 2 are kept. They also are in the care of Tsumuri, but are kept separate from set No. 1, which are "stronger" and of greater importance. The two sets may not be brought into contact. All are said to be susceptible to lightning and will jump about in a thunderstorm.

(C) *Their Use.*—The same method of procedure applies to each set, but the weaker set (No. 2) would first be invoked as a rule, recourse being had to set No. 1 only in more important or more urgent matters.

In the event of a failure of the rains, public opinion would demand a discussion and a meeting of those concerned would be called under a Rudu, or Sacred Tree, set apart for such undertakings.\*

A bull is killed and eaten and a general request will be put forward for the rain-making ceremony to be carried out. If matters are not too urgent, some of the ten lesser stones may be called into action; but should these already have been tried and failed, set No. 1 is requisitioned and their custodian instructed to attend to the matter. Remaining details are left to her, and faith in their efficiency is evidently implicit. On enquiry as to the procedure if rain still held off, I was assured that this contingency was not possible. If rain failed to come it could only be because the custodian had failed to carry out her instructions!

The guardian does not publish when she will carry out the ceremony. Having decided for herself when it shall be, she calls up the young member of the family whom she is instructing. She, too, may decide whether it is an occasion for the "weaker" (No. 2) or "stronger" (No. 1) set of stones, but whichever set is decided upon, the procedure is the same.

A black sheep "and without blemish," is killed, and the fat from the kidneys is taken for the ceremony. The boy is smeared with this fat on the forehead, point

\* The best known Rudu in Madi is the grove at Moyo (Pl. E, Figs. 3 and 4). Pl. E, Fig. 4 shows the graves (Megaliths) of former chiefs (rain-makers). This Rudu is sacred, and is not approached except for purposes of occasional ceremony.

of the chest (ensiform cartilage), back of the hands and the outer side of the dorsum of each foot; he is then sent to fetch water from the stream Areze, which rises at Ele, near Abesso, and flows into the Apiipi River. On his return journey with the water the boy must look neither to right nor left, and must concentrate on the matter in hand. The stones are carefully washed, first separately, and then in and with the pot they are kept in. They and the pot are then smeared with the sheep's fat and they are re-placed in the pot; finally, what remains of the water is poured over them, with appropriate prayers, and they are put away.

All this takes place in the evening, and, when it is over, the boy concerned must sleep prone on his face, and thus ensure an even distribution of rain throughout their country. The anointing of the boy with fat is for a charm against sickness or other evil results likely to accrue from close contact with the power in the stones, and any ordinary adult person who handled them would die—"swollen stomach" or other internal disease is said to cause the death of the person.

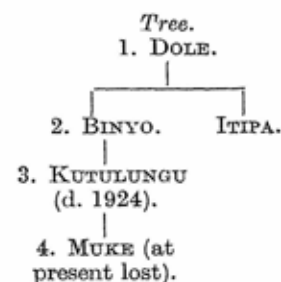
Failing a sheep of the right kind, or in a less important ceremony, the stones may be smeared, for ceremonial purposes, with a mixture of unground sesame, "loto" (leaves of a small wild bush) and a sheep's saliva; and Lukerri assured me that he would have to undergo an application of this mixture at the hands of his mother Tsumuri in order to be purified after having seen and handled set of stones No. 2, which he brought to show me, and which have given rise to these notes.

Lukerri had wished to bring me the stones on the previous afternoon, but his mother had advised that he should bring them fasting; so they were brought in the morning, and, as stated, on returning home, he would be purified.

(D) *Other Stones*.—Lukerri's father, Madzadriya, once came across six stones in a pot, and brought them to his father Mala, who hid them, and never disclosed their hiding place. Lukerri himself once bought three stones from Lokai (now in the Sudan), for which he paid a cow, a bull, a goat and five hoes; but the stones "returned to their own place," and for this outlay he merely incurred his mother's wrath for not having consulted her first.

Set No. 2 and their pot were lent to me by Lukerri to bring to England. When the suggestion was made he readily complied and made no demur, provided they were returned, as set No. 1 would suffice to carry on with. Mr. Louis Clarke has been good enough to have them photographed.

Stone No. 1 (*v. Pl. E.*, Fig. 1) is described as a "male" stone—all the others are "female"; but the only quality in which the male one differs from the others is in its flatness on one side. Nos. 3 and 6 are considered to be "very weak" and have little or no value. Nos. 7 and 8 appear to be portions of the same lip ornament (though this possibility was denied by Lukerri) and Nos. 9 and 10 also seem to be the ends of lip ornaments.



**METULI**.—The nine Rain-stones of Metuli are similar to those on Plate E.; they are none the less respected, though they are treated with rather less ceremony. They are of recent origin, and consist of two males and seven females, of which two have been found since the last chief, Kutulungu, died in 1924. All earlier stones have been lost. Five appeared in Kutulungu's time and two he got from his father. The present guardian is the late chief's uncle, Itipa, as Kutulungu's son, Muke is lost, being of a wandering turn of mind.

The stones are kept in separate pots, 2, 2, 2, and 3, though, when brought to show me, they were carried together in an old sock. Eight are of quartz, and the ninth is a truncated cone of a dark sandstone. They are kept in the hut of Dole's mother; she is long since dead, but the hut is maintained and

looked after by Itipa, who has had charge of the stones ever since he was a boy. He himself performs the necessary ceremonies, and no one else is entrusted with the stones.

*Their Use.*—If, after the killing of a bull under the local Rudu, it has been decided that the stones shall be requisitioned, Itipa takes them to the R. Lifo, and there washes them and pours water over them. They are much feared and it is thought that a man's children would all die were he to touch the stones.

The Metuli stones are not susceptible to lightning, but stones that have been bought are quite capable of returning to their own place of their own accord, if the full fee is not paid. Nor can persons not of the Rain-making family ever retain them; they would return to the Rain-maker to whom they belonged.

In the event of a murder or homicide not being expiated, the Rains would fail; but they could be brought on, however, by the sacrifice of a black sheep and the washing of the stones in the sheep's fat and blood.

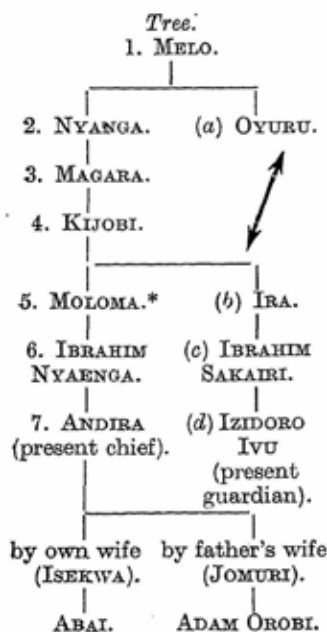
Rain was withheld in 1925 because a man named Ila was accidentally killed by one Madra; but as soon as Madra killed a black sheep, and was purified, the rains then came on normally.

In the absence of a sheep, sesame-oil and the "loto" leaf may be substituted for the kidney-fat.

The stones were invoked in April, 1926, while the large millet (sorghum) was still young, and a normal rainfall resulted. They were brought out, before that, in 1925, and in fact they seem to be invoked regularly in order to ensure that nothing untoward occurs.

Two of the stones were once shown to a Provincial Commissioner (Mr. Watson), who returned them to their guardian; and in the present instance, after having been shewn to me and having been handled non-ceremonially, the stones would be purified with sesame-oil before being replaced in their pots.

LAROPI, NEAR DUFILÉ.—Rain-stone customs in Laropi are very similar to those above. In the accompanying "tree," the *numbered* names are those of chiefs of Laropi; the *lettered* names are those of relatives who have guarded the local Rain-stones on the chief's behalf.



*History.*—Nyanga (No. 2) had a set of stones, but they were lost during local fights and wars. His son Magara acquired a set of six (3 of each sex) from Ndrula, a man of Meturu, for which four cows and a bull were paid. The following diagrams show their size:—

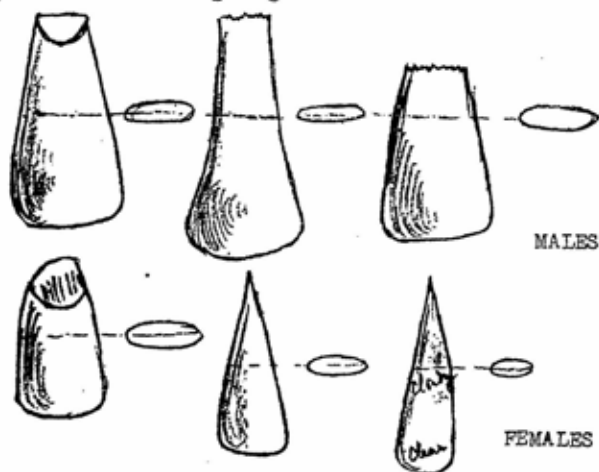


FIG. 1.—LAROP SET NO. 1 ( $\frac{2}{3}$  ACTUAL SIZE).

\* Shot by "Dowgalawi" c. 1889.

These were entrusted by Magara (No. 3) to his uncle Oyuru, who died in Moloma's day, when the stones were returned to Moloma, who handed them for safe custody to Ira (his half-brother). Ira soon died and Moloma then entrusted them to Ira's son, Ibrahim Sakairi, who died in 1922 (Ubi) and was succeeded as guardian by his son, Izidoro Ivu, the present guardian. Although the last-named seems to have been baptised (R.C.) he appears to have lost none of his regard for the sacredness of the stones he guards.

A further set was acquired by Moloma, from chief Leju of Lokai (Sudan) (? Bari Rain-chief of Shindiru); the price paid is not known now, the present chief Andira (No. 7) not having been born and the status of "tradition" in their case not having been attained.

Diagrams of this second set are given in Fig. 2 :—

In addition to the two sets, there are now two other stones, one of each sex, bought by Ibrahim Nyaenga from a Bari native, by name Zale, when at Nimule; the price was 50 rupees (£3 6s. 8d. then). This pair is said to be considerably larger than any of the foregoing, and may not be brought near a village or habitation, but has to remain out in the bush, in their own pot, under a stone.

It is considered desirable to have as many stones as possible, so as to ensure more certain results.

Formerly, the stones were kept at Ubi, in a cave with a very narrow entrance; but Ibrahim Sakairi moved them to Ibijowa, where they are now kept, in the hollow of a rock. This spot is near the main road up to Amua, about a mile from Laropi camp. The set of six stones first mentioned takes precedence.

Ibrahim Nyaenga (No. 6) bought a set of eight other stones from one Oniba of Attiak, but these were lost in the troublous times of the Belgian occupation; the ones now existing were carefully hidden and so were preserved.

They are called Eyikwe (Acholi, Kot), meaning "Rain." The stones may not be carried about exposed to the sun, and are usually brought out only in the early morning or the evening. No special reason was given for this, except that it was customary to treat them so. Should occasion arise for them to go a distance, they must be wrapped up and guarded against exposure; such occasions would be when changing ownership or to help some other country, but they can only be lent thus as a great favour and after much urging.

Each set of stones has its own pot, that of set No. 1 being slightly larger than the other. Normally, each pot contains the stones lying in water, which is poured out in the dry season and replenished when indications of the new rains appear. The water so used must come from running water, e.g., Nile, Amua, or Chala Rivers. The water is emptied out also, in the case of excessive rain, as an indication to the controlling power that there has been enough.

*Their Use.*—The method of use is similar to that already described. On failure of the rains (a subject of scorn in surrounding areas, if they happen to be more

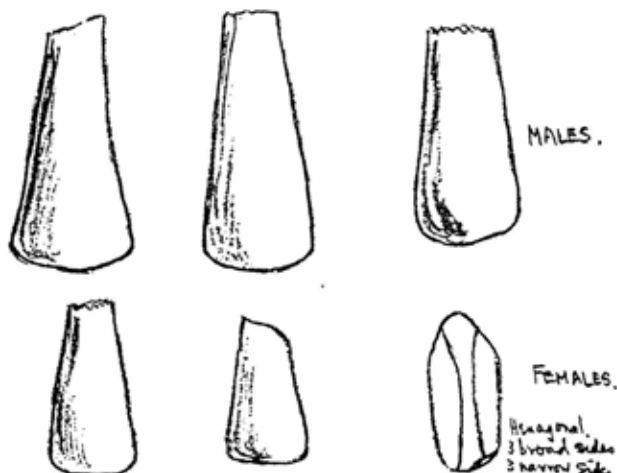


FIG. 2.—LAROPi SET NO. 2 ( $\frac{2}{3}$  ACTUAL SIZE).

fortunate), the stones are brought out and, on instructions from the chief, a "good sheep," and black ("Bilo"), of either sex, is killed by the guardian (he having first bathed) and the contents of the stomach are spread out and prayed over. The prayers are offered to their dead fathers, the former chiefs of Laropi, and when these are over the meat is consumed by the guardian, with the help of male members of the chief's family, or his children if the animal was only a small one; the actual ceremony is carried out by the guardian alone: before the prayers, the stones are carefully washed, smeared with the sheep's stomach-contents and fat from the kidneys, and then replaced in their pot and remain at hand during the ceremony. The guardian must have slept by himself the night before, *i.e.*, apart from his wife, and must have bathed in one of the rivers above-mentioned. If results are not good, he will try another stream, in the order (1) Nile, (2) Chala (which is often dry), and (3) Amua (always running, but more distant). The sheep is sacrificed in the morning and the ceremony occurs in the evening. Other "grades" of ceremony are indicated in the kind of oil or fat used for the smearing:—

1. Stones may be smeared with "Awa-Ado" (oil of butter-nut tree).
2. " " " " "Anyu-Ado" (sesame-oil).
3. " " " " Sheep's fat, etc.
4. " " " " at the Rudu.

No. 3 is the method adopted on special occasions and No. 4 only at a time of specially great tribulation or when all else has failed. On such an occasion, all repair to the Rudu (or Sacred Tree) at Moroli to pray for the country, after the sacrifice of a black bull. This occurs on the death of a chief also. At the termination of such a ceremony, the chief must slaughter a sheep to the spirit of his father.

The stones are held in considerable awe, and contact with them is avoided; for this reason the chief appoints a deputy to look after them rather than incur any risk of harm to himself. One has also to be ceremonially clean, *i.e.*, to avoid contact with women, and if one's wife is *enceinte* the stones must be shunned. And as a chief has several wives, it is simpler to appoint a deputy from the family who is less likely to be hampered. It so happened, recently, that the present guardian's wife was *enceinte* when a ceremony with the stones was necessary; the difficulty was overcome by instructing a small brother from a distance and he did what was necessary. Great care is required, as the stones are capable of causing a miscarriage.

Also, they must be kept properly, either in their own pot, or else wrapped up in Loto leaves; otherwise they will disappear. For instance, a man named Kapalanga found a new stone recently and brought it to the Chief, who put it down in his hut without due precaution, and it disappeared!

They are susceptible to lightning, and Andira says he has seen the stones jump about.

In order to allay the power in them after having brought them out for me to see, a black sheep was twice led round them, with appropriate prayers. They could then be returned to their place. This is the custom.

LIST OF RAIN-STONE GUARDIANS IN MADI (not necessarily complete).

Place.	Guardian.	Place.	Guardian.
Gimara	Lomuri (the "chief" Gombiri "helps" the Government).	Ara	*Ingi and Kassiano Bokitaka.
Lomunga	Amulaga.	Pagarinya	*Angaras.
Relli	Bokitaka s/o Kai.	Arinyapi	Tikaya.
Palorinya	— s/o Opitoro.	Zaipi	Origa.
Lufetri	Dalinya s/o Ari; also Manyu.	Adzugopi	Vurra brother of Bokitaka "Simu."

\* These men are also the recognised chiefs or sub-chiefs in their respective areas, and duly gazetted.

LIST OF RAIN-STONE GUARDIANS IN MADI (not necessarily complete)—*cont.*

Place.	Guardian.	Place.	Guardian.
Anyurapi	- Mbede.	Pachara	- Kengere.
Moyo	- *Bandasi.	Adropi	- Paali (not Chokiri).
Metuli	- Itipa.	Oyuwi	- *Okello.
Gopi	- Moiwara.	Pakelli	- *Surur.
Dufile	- Chau s/o Oтира.	Palaro	- Risgalla Beka.
Gweri	- " "	Laropi	- Izidoro Ivu.

F. H. ROGERS.

Africa, West: Dreams.

Cardinall.

**Note on Dreams among the Dagomba and Moshi (Northern Territories, Gold Coast).** By A. W. Cardinall. **59**

Among the Dagomba the following general rules are observed for the interpretation of dreams. If the dream is seen early in the night the probability is that it will be a true prophecy; if in the middle of the night, then it will be a foolish dream, inspired by the *Chichiriga*; and if the dream comes towards morning then it will also be a true one. By true dream is meant that the dream is an actual prophecy which may be the reverse of the dream or a sign of some coming event.

Among the Moshi to dream when one is lying on one's right side shows that the dream is in the nature of a prophecy, whereas if one is lying on one's left side then the dream is mere nonsense and inspired by the *Chichiriga*, a species of dwarf or pixie.

A common form of dream among all tribes is to dream that one sees the dead. The interpretation is invariably the same. It is that a sacrifice is required by the dead soul from the dreamer.

Common types of nightmares are to dream of being bitten by snakes or being struck by falling trees. This does not necessarily foretell either good luck or bad, but is in the nature of a warning, and the dreamer takes care to avert trouble by sacrificing to his ancestors and to the spirits of the bush before setting forth next day.

From the Dagomba I learnt the following further meanings:—

For hunters only: to dream of raw meat or of a bundle of guinea corn tied up is to foretell good luck. For non-hunters these dreams are unfortunate. (This is due, I think, to the fact that most of the hunters are of a different tribe to the other Dagomba, and are possibly the survivors of the race which the latter conquered.)

To dream of one's own death is good luck.

To dream of teeth falling out foretells the dreamer's death.

The falling dream is a common one and is usually that the dreamer falls out of a tree. This is to be expected in a country where there are no hills and no staircases. My informants were invariably of the peasant class and therefore they could not fall off horses. There is no explanation of this type of dream, but it is believed that one's body is being chased by one's soul and just manages to escape. If one were caught before falling then one would never see the light of day again.

To dream of catching a "white fish," i.e., one with scales as opposed to one with a skin, is good luck.

To dream of catching a black fish, i.e., a fish with skin, is bad luck.

To dream of falling down a well which is dry is good luck, but to dream of falling down a well which is full of water is the reverse.

To dream of being out in a heavy shower is bad luck.

To dream of walking by the side of a river is good luck.

To dream of carrying a dead man is good luck.

\* See \* footnote on previous page.

To dream of a snake biting one's wife's right side means one's wife will have a child; to dream of the snake biting one's left side means one's friend will have a child.

To dream of one's wife carrying a pot of water on her head means that she will soon have a child.

To dream that one is drunk with "dam," i.e., guinea-corn beer, means one will soon have a child.

To dream that one is busily engaged making a farm, either breaking the ground or planting, means that one will have a bountiful harvest.

To dream that one's crop is a large one foretells famine.

From Moshi source I learnt :—

To dream of fire burning brings good luck, and if the whole "bush" is afire then one will have extraordinary luck.

To dream of cold water is also lucky, but not if the water wets one. In that case bad luck will surely follow.

To dream of raw meat (it does not matter if it has been cut up or not, nor what sort of meat) is a sure sign of death. I was unable to learn if the death was that of the dreamer or of one of his close relatives. My informants, there were four of them on separate occasions, were silent on the point and said they did not know. I venture to presume that the death of the dreamer was indicated, because I told the dream as if it were my own.

To dream of seeing a man all red, colour of blood, means that sickness will come to the dreamer.

To dream of being naked and fat is a sign of one's approaching death.

I have with me a small boy, of a tribe known to us as Issala, from the far north of this colony. He usually sleeps on the ground near my bed when I am in a tent in the bush. He has had three nightmares, and on each occasion woke me up with his screams. He told me what he had seen on each occasion. First he was being chased by a man with a head like a frog, who smelt horribly and who shouted at him; secondly he was asleep with a dead man alongside of him; thirdly he was chased by a lion (he had never seen one, but a few days before he had seen a new skin), and the lion kept changing into a man. The older boys all agreed that the dreams meant nothing, but were inspired by the *Chichiriga*, who are also responsible for all forms of night pollutions.

A. W. CARDINALL.

## Africa, East : Dreams.

Hatchell.

### Some Dreams from Urwira (Ukajala), Tanganyika Territory.

By G. W. Hatchell.

60

The following dreams were collected from among the people around Urwira, which is shown on most maps as Ukajala and lies about eighty miles east of Karema on Lake Tanganyika. They are a set of mixed clans of Mhambwe origin. Mhambwe is in the valley of the Malagarasi River and the people there at the present time are Bantu, with a Batussi ruling family. The people of Urwira moved south about 75 years ago for various reasons, partly as a result of internal strife and partly in search of ivory. They tell me that :—

To dream of the loss of teeth is quite the worst thing that can befall, and indicates death within a year.

To dream of flying : they seem rather doubtful about this, but say it is a bad dream.

To dream of climbing a hill or a tree is a bad omen. One should not begin any enterprise next day.

To dream of a dog or baboon is also a bad omen.

To dream of a Sultan or Chief indicates that the dreamer will encounter a lion on the road if he makes a journey next day.

To dream of meat cut up ready for cooking is bad. It indicates a death, for the meat so cut up suggests a *matango* (funeral feast).

To dream of a hole in the ground means a grave, as does also to dream that one is tilling one's garden.

To dream of fire: informants are all doubtful about this. It does not seem to be a very common dream.

To dream of going to the river to wash is a very good omen and indicates success in any venture about to be commenced. One could very safely start out on a journey having dreamed of this on the previous night.

As in Usowa (Lake Shore) the Nkulunkulu bird is very unlucky, and foretells war or strife or trouble with carnivora. The same applies to the pied hornbill. The owl is bad in the extreme: an owl taking up its abode in a village would be quite sufficient reason for abandoning the village.

G. W. HATCHELL.

### Malay Peninsula: Ethnography.

Schebesta.

**The Negritos of the Malay Peninsula. Subdivisions and Names.** By the Rev. P. Schebesta.

61

Although the literature on the aborigines of the Malay Peninsula is a considerable one, it is far from being really exhaustive, or, as regards the Negritos, entirely reliable. In beginning my study and research among these tribes, I was

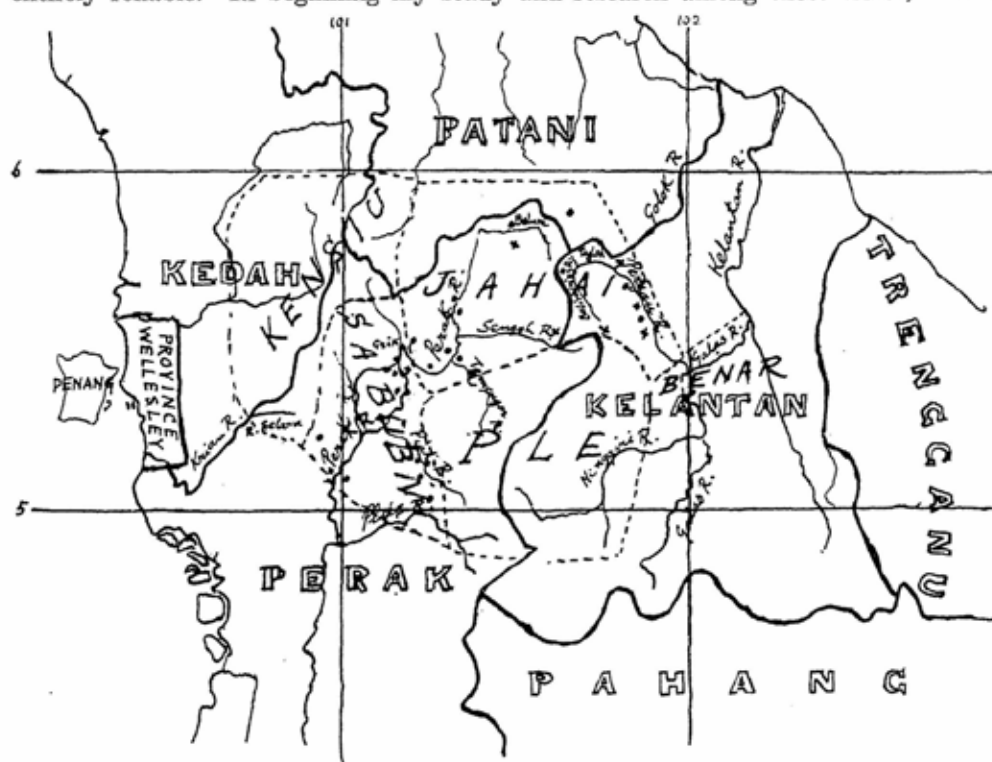


FIG. 1.—SKETCH MAP SHOWING ROUTE OF JOURNEY AND HABITATS OF ABORIGINAL TRIBES, FEDERATED MALAY STATES.

Boundaries of Malay States	- - - - -
Approximate boundaries of Aboriginal Tribes	- - - - -
Places where the author met Aborigines	- - - - -
Places where their presence was reported	- - - - - *

particularly struck by the fact that I found in the existing literature no clear information as to the names of the several Negrito tribes. R. Martin, who has perhaps dealt most thoroughly with the names of the aboriginal tribes (in his "Die Inlandstämme der malayischen Halbinsel," Jena, 1905) endeavours to excuse the confusion in the names on the ground that the aboriginal tribes have no proper native names of their own and therefore suitable designations have had to be found for them. I fail to understand why none of my forerunners in Negrito research have discovered any genuine tribal names, seeing that such do in fact exist and are, moreover, in general use. In two cases I found real tribal names in the literature; in De Morgan, who mentions the Ple\*, and in Vaughan Stevens, who mentions the Kensiu. But both authors appear to put these designations on the same level as those which are applied to the aboriginal tribes by the Malays.

The latter kind are most widely distributed in the books, although we are repeatedly warned not to use them. The caution is a sound one, for it is precisely these names that are responsible for the confusion that prevails in the classification of the Negritos. Finally, attempts have been made to find an issue from this chaos by adopting the word for "man" in the several aboriginal dialects; but this, if possible, made the confusion more confounded.

The following statement aims at bringing order into this medley. Lest my attempt should appear presumptuous, I premise that during the eight months that I have spent up to now in research my attention has been specially directed to the tribal names actually used by the aborigines themselves. With this end in view, and also in order to determine the geographical location of the several tribes, I undertook a long and perilous journey across the Peninsula, which I can claim to have been very fruitful in discoveries. I travelled up the Perak River to its source, and crossed over the mountain range to the eastern side of the Peninsula, till I reached the Galas River. This river I navigated some distance down stream and up stream, and then returned up the Pergau River back to Tadoh. From there I followed the Sengoh River and reached Grik. From Grik I wended my way to the rivers Piah and Plus, and followed these up as far as there are any Negritos near them. My regular companions on this journey were Negritos from a number of different tribes and camps, with whom I was on the most friendly footing.

Whoever has had the opportunity of visiting both the east and west side of the peninsula is aware that the Malays on the one side have different designations for the Negritos from those on the other. This is not, however, due to differences of race in the Negritos, but merely to the Malays.

I here give the principal names used by the Malays. On the west side they style the aborigines Orang Utan (jungle men) in contradistinction to Orang Kampong (dwellers in villages). They further speak of Orang Tanjong (men of the river reaches) and contrast them with Orang Bukit (hill men).

On the east side the term Orang Utan is also very often heard, though the designation Orang Darat, which means the same thing, is perhaps the more frequent. In Kelantan *darat* means the high jungle (*utan besar*). In the east the expression Orang Tanjong is replaced by Orang Belokar† (bush men) and is similarly contrasted with Orang Bukit. They are called "bush men" because they live nearer to the Malay settlements. I pass over other designations locally used by Malays. When the terms Orang Utan and Orang Darat are used as designations for aborigines in general, the Malays use Orang Bukit to denote aborigines who live far from the Malay settlements, and therefore usually in the hill country; but this gives us no information whatever as to their tribal characteristics. The same

\* The vowel is an open e.

† Malay *bélukar*, "secondary jungle," as opposed to old, high jungle.

thing applies to the terms Orang Tanjong and Orang Belokar. Thus the Perak Malays call all the aborigines on the Perak River Orang Tanjong, although this designation comprises two tribes, each with its own distinct language. On the Pergau River the aboriginal tribes are styled Orang Belokar, irrespective of whether they are Jahai, Benar or Karei. The Malays are quite unaware of any tribal distinctions amongst these aborigines. By chance it so happens that a tribal difference is, in fact, indicated, though only in a general way, by the terms Orang Bukit and Orang Tanjong (or Orang Belokar), because the pure Negritos live in the neighbourhood of the Malay settlements, while the mixed race of the Ple dwell far away in the hills. The former are, in fact, in close relation with the Malays, and in some cases dependent upon them, whereas the latter are entirely independent.

The most widely distributed term in the Peninsula is Sakai. It is applied to all Orang Utan, whether Negritos or not. On the east side the term Panggan\* or Panggei is frequently heard, and appears to have been universally used a few decades ago. The aborigines sometimes use the term Sakai to denote themselves (in contrast to the Malays), but never the term Panggan. On the west side this latter name is also quite unknown to the Malays. In Kelantan it is now considered a term of abuse. I was advised by Malays never to use it in my dealings with the Orang Utan. But even the name Sakai is not very much liked, although it may nevertheless eventually become the general name for aborigines. An illustration may here be given, though the case is singular within my experience. I always spoke of the Negritos who accompanied me, or whom I visited, by their tribal names, thereby giving them obvious satisfaction. At Tadoh one of them was moved to express his pleasure thereat, and added caustically: "The Gōb (= Malays) " say to us, 'Panggan, Panggan,' or 'Sakai, Sakai,' but never 'Jahai'."

The western Negritos have been dubbed Semang.† One hardly ever hears this name unless one actually enquires after it and puts the word Semang into their mouths. On the east side the term Semang is quite unknown to the Malays. In one single case a Negrito described himself to me as a Semang. He said: "We here are Semang. Formerly we were Sakai, when we still roamed " through the jungle in search of roots and monkeys. But now we are Semang " for we have a plantation and do not live under trees in the jungle but in the " open country like Malays." This was said to me by Lawen, an old man of the Chapor River (Perak), a member of the Sabubn tribe, who had, however, been much under Malay influence.

Another time, when I was in search of De Morgan's "Sōmañ" at Ulu Piah and asked a Negrito who the Semang really were, and where they lived, he replied "They are the Sabubn." He himself was a Sabubn. When I took him at his word, he said, "No, we are not Semang. They live on the Kerbu." The fact is there are no Semang. The western Negritos understand by Semang a legendary race, who eat all their food raw and devour any sort of filth. On the Perak River they are located in Ulu Plus, in Ulu Plus on the Kerbu, and so on. On the east side this race is also known under the name of Timpagn.

I now feel quite sure that De Morgan's term "Sōmañ" comes from the Sabubn dialect and should properly be Sema', which means "man" or "aboriginal." De Morgan's spelling finds some justification in the fact that after the *a'* a dull *n* is heard.

I expected to find in Ulu Plus among the Sōmañ a tribe resembling the Jahai, being led to this expectation by the list of words in Skeat and Blagden's "Pagan Races of the Malay Peninsula," Vol. II, p. 390, where the Semang dialect of Plus

\* The form usually reported is Pangan.

† More precisely, Sēmang, the *ē* being a neutral vowel.

is contrasted with the Sakai dialect of the same valley. The dialect given as that of the Semang of Plus is Jahai, and it was, of course, very important for me to determine the location of this form of speech on the Plus. I sought for it in vain on the Plus and on the Piah. I am convinced that, though the words may have been taken down from a Negrito of the Plus, he was a Jahai who had strayed to the Plus. I myself met two Jahai on the Piah River. Probably this list of words was not collected on the Plus River at all.\*

Semang and Panggan remain as recognised terms and demand an explanation. None is to be expected from the Malays, and I sought for one in vain in the literature here available. But it became more and more evident to me that there is no justification for speaking of a special Panggan subdivision. This became a certainty after I had visited the east side myself. It then appeared that all the Orang Utan, even the mixed race and the true Sakai, were styled Panggan, and I followed up the same tribe, which in the east is known as Panggan, from the Galas River right up to Grik on the Perak River, where the name Panggan is unknown. Blagden appears already to have felt the vagueness of the distinction between Semang and Panggan, as he prefers to class the Jarum Negritos rather with the latter than the former (*op. cit.*, pp. 409, 501). In actual fact they are identical with the Negritos of the Perak River, Tadoh (Belimbing River), and the Pergau River; these are all Jahai.

The following was given me by the Negritos as an explanation of the names Panggan and Semang (which the Jahai pronounce Pangan and Semang):—

Gidn Gōb Semang ja gidn keid la o'.

They, the Malays, are Semang, they circumcise penis - their.

Gidn Jahai Pangan bēra' gidn keid la o'.

They, the Jahai, are Panggan, not they circumcise penis - their.

Gidn mnra' gidn darat gidn ngog ba hōb. O' t-un mn-ra, o'

They, the Negritos, they junglemen, they dwell in forest. This Negrito, he obn ua jadi Gōb, o' obn ua jadi Semang, o' obn ua keid  
wants to become Malay, he wants to become Semang, he wants to circumcise  
la o' enui o' Pangan.†  
penis-his; at present he (is) a Panggan.

Needless to say, it was with much glee, that I noted down this piece of information, which was given to me under the following circumstances. I had told the Negritos of Tadoh what the Malays said about the name Panggan, viz., that it was a *nama busok*, a term of abuse, but that I did not know what it meant. Thereupon one of them answered with some heat: "It is because we eat *lotong* monkeys and wild boar that the Gōb address us as Panggan." I enquired further: "But what is the meaning of the word Panggan?" (The stress is on the last syllable.) To this he replied in the terms I have quoted *verbatim* above: "The Malays are Semang because they circumcise the penis, the Jahai are Panggan because they do not circumcise the penis." It was further stated: "The Malays call us Panggan, but we when speaking among ourselves call them Semang. Both names are words of the Jahai language." After that, whenever I met Negritos, I sought for confirmation of this statement, and I found it wherever the Jahai language was spoken. The Negritos smilingly agreed with my remark that I was a Panggan like themselves, whereas the Malays

\* It appears from *op. cit.*, p. 502, that it was collected by Skeat at Ulu Siong in Kedah, some 60 miles N. by W. from the Plus.

† The original is written in the alphabet explained in "Anthropos," Vol. II (1907). As some of the characters do not occur in the usual printers' founts, I have made some modifications. The apostrophe represents the glottal stop. The *o* is an open *o* (except in Gōb and hōb); the *u* in *ua* is a semi-vowel, and so is the *i* in *keid*.

were Semang. Whether the explanation is etymologically correct, I am unable to say.

From what has been stated it is plain that both names are unsuitable as designations for the Negritos, in the first place owing to the fact that they are regarded by them as terms of mockery. But there is, in fact, no Panggan tribal subdivision of the Negritos, and so the term Panggan can simply be dropped. Whether the name Semang, which has established itself in common usage, should be retained, is a matter I will not take upon myself to decide. The following remarks may serve to throw further light on the subject.

Many investigators thought that it would be preferable to substitute for it the aboriginal equivalent for the word "man." But they overlooked the fact that there are several distinct Negrito dialects. One of such words is *Sema'*, which is identical with De Morgan's *Sömañ*. It belongs to the Sabubn language. The Sabubn are physically Negritos, but their language belongs to the northern Sakai group. The Sabubn tribe is also relatively a small one.

Other tribes, such as the Jahai, use the word *mn-ra'*, which has the same meaning. The Benar on the Galas River say *mn-ri'*, or alternatively *mn-i'*. The Ple, however, who are the most influenced by the Sakai, use the word *sen-oi*. All these, except *sen-oi*, are derived from the same root. This unknown root would no doubt be an adequate designation for all the Negrito tribes of the Malay Peninsula.

Though we find in the languages of the aborigines no uniform name for the whole Negrito stock, we do nevertheless find among the several tribes particular tribal names which they use whenever they distinguish themselves from other tribes.

There are the *sema'* Sabubn, a mixed tribe on the Piah River and in Ulu Plus, and furthermore on the Perak River right up to Grik. I estimate their numbers at about 300 individuals.

The *sen-oi* Ple in the mountains of Ulu Plus and Piah, Ulu Temengor and Nenggiri.

The *mn-ra'* Jahai, along the Perak River from Grik upwards, in Kelantan in the region of Tadoh and on the Pergau River as far as the Galas River. This is probably the largest of the Negrito tribes. I can safely assess its numbers at 600 souls.

The *mn-ri'* Benar (also called Lapar by the Jahai) are on the Galas River. The *mn-i* Kensiu are in Kedah. In Patalung I was unable to discover the tribal name of the local Negritos.

I see no reason why these tribal names used by the aborigines should not also be adopted as terms of ethnology and linguistics. Each of these groups is differentiated by its own particular language, differing more or less from the others.

In the east other tribes may perhaps be found, e.g., the Karēi on the Golok River, though I should prefer to regard this tribe and also the Benar as sub-tribes of the Jahai.

Of course there are also among these tribes names for tribal subdivisions. They are mostly taken from the rivers where the particular groups dwell. I will not pursue that point further. But it is evident that such names are unsuitable as designations for a tribe, though we find them not infrequently in the literature. It should also be noted that such a tribal subdivision is apt to retain the name of its original home, although it may be living miles away from it. However, sooner or later, it goes back to the old home.

I may be permitted to make the following suggestions: retain the term Negrito to denote the Negrito tribes of the Peninsula, and use the established term Sakai for the others. If people will not drop the name Semang, let them cut out Panggan in any event. To distinguish the several Negrito tribes the true aboriginal terms should be used. In any case, all names given by the Malays should be avoided, as they are often misleading.

In this connection I should like to add a little about Vaughan Stevens, the writer who has dealt with the Negrito tribes in the most detailed, though not the most lucid, way. I cannot here deal in detail with his investigations, as I have not got his publications at hand and my own investigations in the field are far from being finished.

According to information given by a resident in these parts, Vaughan Stevens worked among the Negritos of Lenggong. On the same authority, he spoke Malay fluently, and, in my informant's opinion, also the language of the aborigines; at any rate my informant several times saw him talking with the aborigines who carried his things. However, I am not quite sure that such conversation was carried on in the aboriginal language. The same authority describes Stevens as a boastful person, but does not believe that he intentionally tried to deceive.

Stevens seems also to have lived at Ijoh, where I was shown the site on which a certain "Tuan Jabo" formerly had his house. This Tuan Jabo, who had dealings with the Negritos, lived there about the same time that Stevens was also in Malaya. It appears also that Stevens studied the tribes of Selama, for the materials noted down by him on the west side are in the Kensiu dialect.

As regards his stay on the east side, it is more difficult to arrive at anything definite. His Temia, or Temer, as the Negritos call them, are a branch of the Ple in Ulu Nenggiri. The Malays call them Temiar. Tumeor may be a corruption of the place-name Temengor (which the Perak Malays pronounce Tumeñor). Whether Stevens stayed among these tribes, so far inland, it is difficult to determine. I would rather accept the statement than deny it, for his information about them is too detailed to have been derived from a Malay source.

In any case, Stevens knew nothing of the Jahai. I have been unable to trace the designation Udai, which is evidently given by the Temia to the Belum Negritos.

I have already expressed a doubt as to whether Stevens understood or spoke any of the languages of the aborigines. The more I examine his linguistic materials, the more I am confirmed in the impression that he only had a very superficial knowledge of the language.

His investigations on the east side were made among non-Negritos. His Temia are a mixed race, which in Ulu Temengor is in fact dark in colour, often frizzy-haired, and practices tattooing. They have to some extent also adopted the use of the bow. Stevens's accounts, though they do not fit the Negritos, may very well have reference to this mixed race.

The flower-theory in decorative art, as worked out by Stevens, is false, so far as the Negritos are concerned; we must wait and see whether it finds any confirmation among the Ple. All the Negritos say that they learn decorative art from the Ple. They are still in process of learning it; it is not true that they have already forgotten the technique, etc., of it, as Stevens imagined.

Stevens's one great error was that he could not draw any definite line between pure Negritos and the mixed races. This in itself explains to a great extent why his statements do not apply to the Negritos.\*

P. SCHEBESTA.

## Borneo: Games.

Jacques.

### Notes on certain Games played by the Chinese in Sarawak.

By E. W. H. Jacques.

62

*Mo-li-ko-seng*.—A method used among the Sarawak Chinese for deciding precedence in a game, etc.

\* The translation of this and the previous article (MAN, 1926, 54) from the original German has been made by Mr. C. O. Blagden, who has also added the footnotes.

The thumb and fingers are named as follows:—

Thumb	-	Tua-pek-kong	-	The temple or image in the temple.
1st finger	-	Ke	-	Fowl.
2nd do.	-	Ch-heng	-	Gun.
3rd do.	-	Hoi	-	Fire.
4th do.	-	Kau-hia	-	Ant.

The players in pairs each clench a fist: the words "Ma-li-ko-seng" (in the sense of one, two, three, go!) are said by one or both. At the word "seng" a single digit is exposed by each player.

Scoring.—Tua-pek-kong	beats	Ke, Ch-heng, Hoi	-	-	-	1
Ke	do.	Kau-hia	-	-	-	2
Ch-heng	do.	Ke	-	-	-	3
Hoi	do.	Ke, Ch-heng, Kau-hia	-	-	-	4
Kau-hia	do.	Ch-heng, Tua-pek-kong	-	-	-	5

1. Since (a) the fowl is sacrificed to him (the god), (b) the god can carry and use a gun, and (c) the god can make use of fire.

2. The fowl can eat an ant.

3. The gun will destroy a fowl.

4. Fire can (a) cook the fowl and (2) and (3) destroy the gun and the ant.

5. The ant can creep inside the gun (a) and (b) he steals the food laid before the god.

A simple form\* of Ma-li-ko-seng, and used for the same purpose, is called Jang-Keng-poi. The method of play is the same save that the warning is "Jang-keng-poi!"—as it were, one, two, go! Instead of exposing a single digit as in Ma-li-ko-seng, either the shut fist, two fingers or the open hand is shown. The fist, fingers and the hand are thus named:—

Shut fist	-	-	-	Cheek	-	-	-	A stone.
Two fingers	-	-	-	Ka-tor	-	-	-	Scissors.
Open hand	-	-	-	Chua	-	-	-	Paper.

Scoring.—Cheek beats Ka-tor since scissors cannot cut stone.

Ka-tor beat Chua since paper can be cut by them.

Chua beats Cheek since a stone can be wrapped up.

The game is described as played among the children speaking the Hokkien dialect of many traders of Sarawak and the names given are in this dialect. The spelling approximates as nearly as possible to the sounds without the use of an elaborate system of signs, etc.

The actual meaning of the terms "Ma-li-ko-seng" and "Jang-keng-poi" is obscure. The terms were described to the writer as simply the names of the games. It is fairly certain that the terms do not describe any part of the hand used in the games.

A Kheh Chinese described a variant of "Ma-li-ko-seng." According to this informant the 3rd finger is, amongst the Khehs, given the name of wolf or some such beast. Hence the scoring differs, being as follows:—

Temple	beats	Fowl, Gun, Wolf (the god can hunt it) and Fire.
Fowl	do.	Ant.
Gun	do.	Fowl, Wolf.
Wolf	do.	Fowl.
Ant	do.	Gun, Temple.

E. W. H. JACQUES.

\* Known, of course, in Europe.

## REVIEWS.

Economics.

Leroy.

*Essai d'Introduction Critique à l'Étude de l'Économie Primitive. Les Théories de K. Buecher et l'Éthnologie Moderne.* By Olivier Leroy. Paris: Paul Geuthner. 1925. Pp. xiv + 140. 14 illustrations hors texte.

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Despite its real importance in anthropology, primitive economics has hitherto been rather a neglected study, suffering from lack of both theoretical inspiration and a solid basis of reliable data. Yet the value of research along these lines can hardly be gainsaid. In every society economic effort is fundamental to life and culture. To secure the material goods deemed necessary for the satisfaction of human needs organised activity is required, and the study of this organisation—by no means a simple task—affords a very useful clue to the nature of peoples and their institutions.

Until quite lately the bulk of the work in primitive economics was the product of German sociologists and anthropologists, to whom, despite their bias in favour of evolutionary hypotheses, all credit is due for their pioneering efforts. One of the most outstanding figures in recent years is undoubtedly the economic historian Karl Bücher. Both his "*Entstehung der Volkswirtschaft*" (translated in 1901 under the title of "*Industrial Evolution*") and "*Arbeit und Rhythmus*" occupy a deservedly high place in the somewhat slender literature of the subject. At the same time, both from his general premises and from the paucity of relevant data to draw upon, the work of Bücher has grave faults. In essentials these spring from the fact that as a *National-ökonom* of the nineteenth century, he projects the concepts formed by the study of modern institutions on to the plane of savage life, and in this way formulates *a priori* his conclusions as to the structure of primitive economics. This is in reality the method by which he has discovered in the phenomena of modern native life "traces" of a condition of "individual search for food," a pre-economic stage of development (*ein vorwirtschaftliches Entwicklungsstadium*).

This much is said in order that the utility of the present book of Dr. Leroy may be appreciated. For it is the great popularity which the writings of Bücher have enjoyed which renders it the more imperative that an attempt should be made to test and evaluate his work. While many writers have recognised the inadequacy of Bücher's views on certain points, as, for instance, L. Wodon in a brochure of twenty years ago, and the well-known "*Kulturhistoriker*," P. W. Koppers in his valuable

"*Anthropos*" essay of 1915-16, none have hitherto engaged in any detailed critique of his general methods and results.

Dr. Leroy in this monograph has performed his task well. He has given an acute critical analysis of Bücher's theories and has shown by weight of evidence the inadequate basis on which they rest. In regard to method he points out that Bücher, while affecting scorn of the artificial constructions of the classical economists, yet himself decides *a priori* what are primitive traits of character. He proceeds on the principle of negation, denying to the primitive all that he conceives to be the attributes of the civilised man. Hence to the altruism, honesty, work and forethought of members of our own society are opposed the egoism, thievery, idleness and improvidence of the savage. Moreover, while purporting to characterise the "nature folk" of the lower ranges of culture, Bücher loosely draws his illustrations at convenience from peoples of every type.

The author then indicates how this vice of method has led Bücher to a number of false conclusions. To mention but a few points: by an examination of the economic life of such peoples as the Veddas, Andamanese, Senoi, and Yahgans, Leroy shows conclusively that there is a definite co-operative organisation in the work of production, and that there is no ground whatsoever for postulating the existence of a primitive stage of "individual search for food." By the study of the realities of the institution of property in simpler societies he rebuts Bücher's assertion of pure individualism, as well as the equally fantastic theories of a primitive communism, advanced by other writers. He acutely remarks: "Conclusions donc: communisme, individualisme sont des formules trop vagues, trop lâches, où la réalité ne se laisse pas volontiers emprisonner" (p. 45). Likewise the widely held theories of absence of economic foresight on the part of the savage, the development of work out of play, and the origin of exchange in gifts are swept overboard by a moderate but effective wave of logical objections and well-placed facts. It shows Bücher to have been lacking in that philosophic doubt with which the scientist should always regard his own theories.

Leroy's work is almost wholly of a critical nature. In fact he himself does not pretend to be constructive, to build up a synthesis—the reason being, as he lightly admits, "Ce n'est ni modestie, ni désir de faire bref, c'est scepticisme." The one serious blemish of this is that his criticism leaves little room for a real evaluation of

the merits of his subject. He fails to recognise in particular the undoubted services rendered by Bücher in linking up the study of the economic life of primitive societies with the general science. But in its critical power and broad anthropological background Dr. Leroy's book is an invaluable monograph for all who would undertake research in primitive economics.

RAYMOND FIRTH.

Pacific: Population.

Roberts.

*Population Problems of the Pacific.*

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By Stephen H. Roberts, M.A. London: George Routledge & Sons, Ltd. 1927. Pp. xx + 411. Price 21s. net.

"The hibiscus shall grow, the coral spread, and man will pass away" mourns a native song. Such, too, is the burden of the lament of nearly all who have had occasion to write of the island groups of the Pacific. But most of the works end on this depressing note. The central theme of the present book is an attempt in comprehensive and scientific fashion to grapple with the problem of the native peoples, to consider the causes and extent of their decline, the real effect of the regulative and ameliorative measures put into operation, and the remedies which are most likely to yield satisfactory results. Nor does the author confine himself to this alone.

The whole problem of population in the Pacific is indeed a complicated one. It resolves itself in essential into three main issues: the desire of the European to utilise the resources of the area; the wish to avert the decay of the native races, and, more recent but ever more imperative, the need to determine the place to be occupied by the Asiatic immigrant. Opinions vary as to the relative emphasis to be placed upon each issue; it is also a debatable question whether the exploitation of natural resources does not also include that of the native. Whatever be the answer it is clear that there is a strong interrelation between each of the major aspects of the situation. Of all these problems a careful and well documented survey is given, and a number of useful suggestions put forward for their solution.

The first part of the book is an analysis of the factors of depopulation, in which, among others, due emphasis is laid on the psychological elements of decline. The soundness of the author's anthropological standpoint is evidenced by his insistence upon the value of the former *tapu* and magic as regulative forces in native life, while he deplores the abolition of savage institutions even when alien to the temper of the European, and realises the destruct-

ive effect of interfering with native custom. As he points out, the change from matrilineal to patrilineal descent in Fiji, the weakening of social distinctions in the Trobriands, the suppression of dancing and breakdown of the clan system in New Guinea, the decay of totemic traditions in New Caledonia, all tend to hasten the decline of native culture and the disappearance of the native. With regard to the hotly debated question of missionary influence a moderate attitude is adopted. Their proselytising campaign inevitably tended to facilitate the decline of the native, they exercised undue zeal in attacking native institutions, they abolished useful social distinctions, they broke down rather than replaced. "Unwittingly the missionary, by destroying everything native, was adding to the gravity of the native problem" (p. 41). At the same time their value as a buffer between the native and a ruthless commercial exploitation is recognised. They did much to arrest the decline induced by the beachcombers and the visiting explorers while individually they assisted greatly in promoting an understanding of the native psychology and point of view. "Any survey which neglects or minimises the importance of the missionary both past and present, in stabilising native existence, and in assuming practically the whole of the control of education and native agriculture and a good deal of the medical work, would be avowedly incomplete." (43).

As the result of a demographic survey of the various island groups a note of optimism is sounded: in a number of groups the population is increasing, while in most of the others the decrease of later years has proceeded at a diminishing rate. Here, however, one would like to see a closer analysis with more attention paid to the factors of miscegenation. Careful consideration is given to the question of the remedies adopted or proposed to combat the decline of the native, which are grouped as psychological, economic, medical and governmental measures. To speak only of the last named—the policy finally endorsed is that of a "modified indirect rule," a practical compromise, where responsibility to the European official is conjoined with executive capacity on the part of native organisations built up from within the community itself. The author is by no means blind to the weaknesses of this policy, which is a development of that type in vogue in Papua, or more nearly in Samoa, but considers it the nearest approximation to a workable scheme which will recognise the facts of economic exploitation as well as

the interests of the native. Village councils are preferable to the appointment by Europeans of natives as officials. As the author remarks "The elevation of an individual to a Government post, whether he be a chief as in Fiji, or a person chosen for his qualifications as in Papua, is not so much government of the natives by the natives as government through an intermediary who is primarily a Government official and only secondarily the spokesman of his fellows" (182).

The scope of the investigation is still further widened in the second part of the book, which deals with the coming of the Asiatic and the effects of racial admixture. Here, as elsewhere, the economic situation receives competent treatment.

Criticism may be passed on a few points. Thus from the evidence at hand one finds it difficult to agree with the view that a radical process of decline had set in among the island peoples before the entry of the white man into the Pacific. To talk of "racial decay—decay verging unto death even when the first Europeans came" is rather fantastic. Nor does the cause assigned—the enfeeblement due to cessation of migratory voyages—carry any sort of conviction. Some of the anthropological dicta are a little naïve. Thus we are told "Administrators of the Bantu and the Nigerians and the Melanesians found that the natives in these widely separated lands lived a life of organised complexity" (18), a rather terrifying though meaningless statement. Slips such as *Bernice Paui* (*Pauahi*), *Moari* (*Maori*), *Hongi Heká* (*Hika*), *Espiritu Santu* (*Santo*) and *aro moana* (for *ara moana* = sea way) are perhaps inevitable. *Inter alia* the large native war canoe preserved at Auckland is not of the outrigger type, as stated on p. 20.

Such small blemishes, however, hardly mar the intrinsic quality of the work, which displays a comprehensive outlook, a moderate summing-up of diverse points of view and a suggestive treatment of difficult questions. Even if final agreement is not always possible with the solutions put forward—though they are in the main well considered and practical in tenor—it will be freely acknowledged that the author has performed the great service of having clearly enunciated an intricate problem.

RAYMOND FIRTH.

America, South: Ethnology. Karsten.

*The Civilisation of the South American Indians.* By Rafael

Karsten, Ph.D., Professor of Moral Philosophy in the University of Finland, Helsingfors; with a Preface by Dr.

Edward Westermarck. London: Kegan Paul, Trench, Trubner & Co., Ltd. pp. xxxii, 540. 21s.

In his introductory note, Professor Westermarck states that this volume is "the most important contribution to the study of certain aspects of the South American native civilisation which has yet appeared." To this all students will readily agree, as Dr. Karsten goes far deeper than usual into the ideas underlying the different elements of the civilisation with which he deals. These include body painting; customs connected with the hair and nails; ceremonial mutilations; feather and other ornaments, including dress; the origin of art; the Indian conception of the spirits of animals, plants and inanimate objects; sacrifice; the Indian theory of generation and conception; the *couvade*; Taboo and Mana. In fact, to use the writer's own words, his work "deals with the most important problems of the Social Anthropology of South America in general." He calls his method "the comparative sociological method, adopted especially by British students of Social Anthropology, with the exception only that it is applied to a limited geographical area, South America."

Throughout the whole book Karsten points out the extreme importance of animism in the daily life of the Indians, and says that "it must, in fact, be expressly stated that the more we become acquainted with the actual religion of the Indians, the more clearly animism appears to be the fundamental belief upon which the religious or superstitious practices are based, not exactly an animism in the well-known Tylorian sense, but still one involving the idea of a sort of spiritual principle or soul which animates the body" (pp. 155 and 156). He can find no trace in South America of the animism of Dr. Marett nor the preanimism of Dr. Preuss; and, dealing with Taboo and Mana, he emphasises the strong animistic ideas of the Indian in his conception of these two elements of his cultures.

In his chapter on body painting the author points out that the origin of art is not to be sought in aesthetic or utilitarian motives but in the desire to provide a means of defence against evil spirits which bring disease. In some parts, such as the Chaco, among the Chiriguano of Bolivia and the Tobas, the women, who are considered more delicate and more exposed to these supernatural powers, are more painted and tattooed than the men.

The beautiful feather ornaments so much admired in Museums "afford not only an efficacious protection against evil spirits

"but are also powerful means whereby men can conjure and exorcise them"; the birds whose feathers are most commonly used, for instance rheas, parrots and herons, are commonly regarded as magical birds. "Since the spirit of the bird is collected in its feathers, as the human spirit is concentrated in the hairs of the head, it follows that feathers and plumes are charged with supernatural power. In this belief, it seems to me, we must seek the real explanation of the enormously important rôle feathers play in religious ceremonies" (p. 77).

In his chapters on the origin of ornamental art Karsten shows that their decoration is of three main types, namely, the representation of human figures, of animals, and geometrical designs; and says "that most Indian ornaments have originally had a purely practical object, being magical charms against evil spirits; the frequent occurrence of animal figures as ornaments is due to the common belief that spirits assume the shapes of animals" (p. 200). Geometric designs, he says, were originally derived from concrete objects and generally represent some vital parts of the human or animal bodies; for instance, "the Indian firmly believes that he can intimidate evil spirits by means of pointed instruments, and both arrows and animals' teeth play an important part as charms. If any object is believed to have power as an amulet, the same power is ascribed to its painted or engraved likeness. Whatever the original object may be and even when this has been entirely forgotten, as may gradually happen, the notion still remains that the triangular figure itself is a charm and this is perhaps now the most common

"motive for using this pattern in decorative art. The same may be said of squares, crosses and other linear ornaments" (pp. 228-229).

In his chapter on customs relating to hair and nails he points out that the hair is the seat of the soul and that evil spirits are liable to attack Indians by catching hold of their hair; and tells how, when he asked a Chorotis why a widow cuts and destroys her hair he learnt that the dead husband who wants his wife to follow him to the grave is believed to attack her through her hair, and so she cuts it off (pp. 46-49). In many tribes, girls at puberty, when they are considered to be in an exceptionally dangerous condition, cut their hair off to escape from evil spirits. Scalping, which is limited in South America to the Gran Chaco and Guiana and is probably a later development of preparing the whole head, enables the victor to adorn himself with the scalp of his enemy and thus acquire his spiritual power.

Dealing with the *couvade*, Karsten shows that many Indian tribes consider the child to be far more intimately connected with its father than with its mother, and quotes from Von den Steinen touching the custom amongst the tribes of the River Xingu in Brazil, who believe that the man is the real bearer of the eggs, which he introduces into the mother; hence the child is the "little father," and anything which affects the father likewise affects the child. So the father fasts and remains in bed to evade, by being hidden, the supernatural enemies who through him would harm the babe.

Dr. Karsten handles his mass of material in a masterly manner and his book is one which all students of ethnology should read. An excellent index is provided. L.C.G.C.

## CORRESPONDENCE.

Anthropology, Physical:  
Mongolism.

Hocart.

### Methods of Sitting.

To the Editor of MAN.

Sir,—Allow me to come to the aid of Mr. Gerhardt von Bonin in his contention that methods of sitting have nothing to do with racial conformation, that in particular the method of sitting tailor fashion is not a racial trait of the Mongols (MAN, 1927, 23).

The Tongans, like other Polynesians, have undoubtedly Mongolian affinities. Their formal way of sitting is with legs crossed, each knee resting on the foot of the opposite leg, or with one knee on the other foot, and one foot on the other knee.

I believe at ceremonials both methods are indifferent, but, anyhow, at kava they sit tailor fashion and may not change the position of the legs however long the ceremony may last.

The Rotumans are at least as Mongolian as the Tongans. In fact I have never seen such Mongolian looking children in the Pacific; and the traders used to explain that a Chinese junk had been wrecked there, and thus accounted for the Chinese appearance of the people. Rotumans call the cross-legged seat "Tongan sitting" and say they got it from Tonga. It is the ceremonial seat. The old Rotuman ceremonial seat was kneeling and resting the buttocks on the heels, a method used in

Egypt. The outdoor seat was squatting on the heels, a method to which they gave a rude name.

The Fijians are not Mongoloids, but Negroids. They sit formally like the Tongans, but are not strict about stretching their legs at a ceremony, though in practice they naturally sit decently. In ordinary life they constantly sit with one leg tailor fashion and the other half extended.

The Solomon Islanders I knew would, in type, be called Papuans, I suppose. They sit on their heels.

In India great importance is attached to the manner of sitting, as will be seen in the sculptures. There are definite rules, and technical terms. The method of sitting tailor fashion is called *pallamka*. There seems to have been a rule not to change the position of the legs in meditation, for there is a term, *ekapallamka*, which means sitting without changing the position of the legs. The Buddha is supposed to have sat so for seven days at the foot of the Tree of Knowledge.\* The first Tongan method seems to have been the usual one in India, but I have seen the second in sculpture, though I cannot lay my hands on an example. The informal Fijian seat went under the name of *lilāsana*, "playful seat." It is especially common in South Indian gods. It appears to have been the seat adopted by the king on his throne on certain less formal occasions. The Indians evidently attached much importance to the exact way of sitting, for we are told of one man that he sat down "avoiding the six faults in sitting down."†

The conclusion is that the so-called Mongolian seat has nothing to do with the

Mongolians, but is a highly conventional way of sitting, originally used for ceremonies. Like all customs it has been carried about, and the Chinese seem to have got it from the Buddhists, in whose sculpture it predominates. A. M. HOCART.

Archæology.

Hemp.

### The Excavation of the Five Knolls, Dunstable.

To the Editor of MAN.

SIR,—I am afraid that Mr. Daryl Forde's report on the excavations of one of the Five Knolls provokes criticism on other points than those of method so justifiably raised by Dr. Cyril Fox.

I refer in particular to the dimensions given for the barrows.

In Fig. 1, barrow No. 2 is described as having a diameter of 85 feet, but the plan shows it as approximately 60 feet in diameter.

In Fig. 2, both plan and section show barrow No. 5 as having a diameter of 70 feet, while text and general plan (Fig. 1) give 50 feet for the same dimension. Moreover, the scales employed for plan and section in the same figure are different, but so nearly alike as to be confusing.

It would, perhaps, be somewhat hypercritical to complain of the looseness of some of the descriptions (e.g., the urn is "to the left side of the head" (p. 23, l. 3), whereas the photograph (Fig. 2) shows it as near the right shoulder of the skeleton; but inaccuracies and inconsistencies of measurement can scarcely be excused.

I am, etc.,

WILFRID J. HEMP.

## ANTHROPOLOGICAL NOTES.

*Library Facilities.* — Valuable facilities for the use of the extensive series of scientific and technical publications in the Science Museum, South Kensington, have recently been granted by the Board of Education to members of scientific societies and other approved institutions of standing. In order that these publications may be made available to those who are not resident in London, it has been arranged that members of such institutions may borrow through the organisation to which they belong such books or periodicals as they need provided the institution is prepared to accept the responsibility of replacement in case of loss and to defray the cost of postage. The Council of the Royal Anthropological Institute has notified its acceptance of these conditions and is now prepared to obtain books for its members

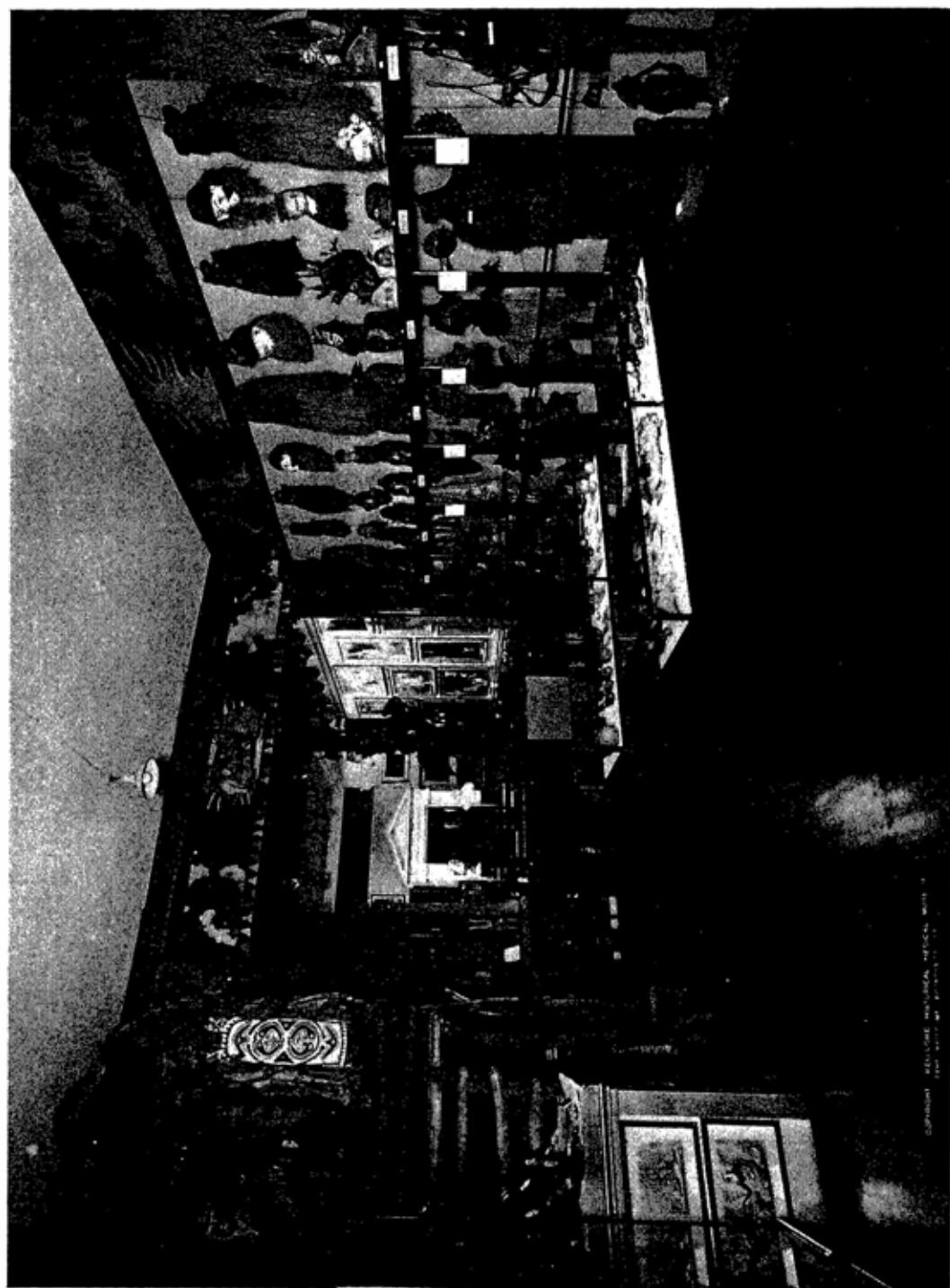
from the Science Museum Library on the condition that any member borrowing books will indemnify the Institute in case of loss and will defray the cost of postage. Members will note that applications for books can be made to the Science Museum Library only through the Institute and by an officer of the Institute and not direct. A catalogue of the scientific periodicals in the Science Museum Library can be obtained from the Science Museum, the Stationery Office, or any bookseller. Price 1s.; by post 1s. 3d.

Similar arrangements have also been made with the Council of the Geological Society whereby Fellows of either society may borrow the publications of the other. In this case, also, application should not be made direct, but through the respective officers.

\* *Udāna*, III. 10.

† *Jātaka*, I. 95.





THE HALL OF PRIMITIVE MEDICINE, THE WELLCOME HISTORICAL MEDICAL MUSEUM.

## ORIGINAL ARTICLES.

With Plate F.

Museums.

Fallaise.

**The Wellcome Historical Medical Museum.** By E. N. Fallaise.  
With Plate F.

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The Wellcome Historical Medical Museum, founded by Mr. Henry S. Wellcome in 1913, deals very largely with the development and evolution of medicine, surgery, pharmacy and their allied sciences. The scheme of arrangement is evolutionary; and the various stages in each series are represented as far as possible in the Museum. The student of anthropology will be specially interested in those series illustrating the craft of prehistoric and primitive man.

The first section of the Museum deals with Primitive Medicine, and the material is arranged to show the craft of the native layman and the so-called medicine-man. This section includes the series of crania and implements prepared by Dr. J. Wilson Parry to illustrate various methods of trephining. The cult of the medicine-man is illustrated by a series of effigies in costume, together with the paraphernalia of his craft. Other elements illustrated include godlings, fetishes, portrait statuettes, divining images, skull cult; ancestor cult; and totemism.

The second section in the Museum is devoted to magic; and here are ranged talismans, amulets, charms, mascots, etc., from various parts of the world. Special attention has been paid to the Evil Eye amulets, which have been arranged in geographical order. Included in this section are rare magical objects from Peru, Bolivia and Colombia; divination bowls from Persia, Afghanistan and North Africa; inscribed tablets from Babylonia; votive offerings, etc., etc.

A case is arranged in this room containing objects used or worn, illustrating Deformation of the head, Moko, Tattooing, Cicatrisation, Body-painting, Deformation of the nose, lips and ears, Glossectomy, Depilation, Circumcision, Sub-incision, Infibulation, Clitoridectomy, Constriction of the waist, etc., etc. In referring to the Hall of Primitive Medicine, perhaps one may mention Sir Arthur Keith's remarks at the Re-opening of the Museum last year. He said:—

"Now the evolution or history of medicine is more difficult than any other branch of knowledge to illustrate by museum methods. The trend of evolution is nearly always towards complication; if we trace the history of a man's fighting weapons, we begin with a few types of a simple kind and we end in these modern days with the innumerable and highly differentiated engines of war. But in Medicine it is otherwise; even amongst the most primitive races of mankind, we find that the practice of medicine is founded on an elaborate code of beliefs; these beliefs are the fine-drawn gossamer of savage fancy—altogether too delicate threads for the clumsy fingers of museum curators to touch. If our task were merely to illustrate how the Medicine Man, whose image you



FIG. 1.—TIBETAN BONE-APRON, LHASA.

will see to-night in his hut in New Guinea, seated amidst the simple and uncouth emblems of his art, becomes the fashionable physician of Harley Street with the artillery of modern science at his disposal, there would be no technical difficulty, for from the countries which lie between New Guinea and Harley Street we could cull a perfect series of ascending forms—an intermediate series of the kind which is so dear to the hearts of museum curators. Our difficulties begin when we seek to portray how the native practitioner looks upon the human body when it is well and when it is ill. Until we have surmounted this difficulty we cannot appreciate the riches which are shown in Mr. Wellcome's 'Hall of Primitive Medicine.'

"To give a concrete representation of the beliefs in which Medicine begins is particularly hard for men like myself. We have been trained to accept only what we can see and prove, to suppress all our childish notions. We find it almost impossible to take the mentality of primitive medicine seriously. It would have been otherwise with Lewis Carroll, the immortal creator of 'Alice in Wonderland'; he understood how

children reasoned and, therefore, could have entered the hearts of primitive men without effort. There can be no doubt that in the play of his fancy, early man, like the primitive races of to-day, was a child and had a childish way of reasoning. The late and gifted Dr. W. H. R. Rivers, in his enquiries into the theory and art of Medicine among the natives of Melanesia, was able to lay aside the scientific armature of his mind and to adopt the point of view of the practitioners he encountered in primitive communities. He found that the rudest native practitioner had, like his counterpart of Harley Street, a definite theory of disease and that the means he adopted for its cure were a logical outcome of this theory. Had Lewis Carroll told a New Guinea medical man that after the material Cheshire cat had vanished its smile remained behind, the statement would have been accepted without the raising of an eyebrow. It must be a very long time ago since primitive man began to look on the human body as a mere husk and the spirit within it as the real person, for this way of interpreting the living body is almost universal among native peoples. On this belief the native physician bases his treatment of disease. If a man is to be free from illness, his spirit must remain free, intact, uninjured. Illness, the native holds, springs from



FIG. 2.—FETISH FIGURE, CONGO.

the spirit—not, as we believe, from the flesh. If the spirit be driven out of the body and forsakes it permanently, then death occurs. This is how the Melanesian explains death to himself and to his patients. Hence, a native practitioner's business is to discover in what way injury or damage has fallen on his patient's spirit, and, as these injuries are usually caused by other spirits or baneful influences, it is clear that a native, to practise successfully, must have studied and mastered the ways and wiles of these immaterial beings and things. The expert native practitioner is he who can best cajole the cloud of spirits which permeate the air of primitive communities.

"As we dig into the beginnings of Medicine we find that its foundations are laid on leechcraft, witchcraft and priestcraft. The early physician was also magician and priest. Unless you have grasped this truth you will altogether fail to understand Mr. Wellcome's 'Hall of Primitive Medicine'; for in that Hall you will find a wealth of amulets, charms, talismans, mascots, phylacteries, totems, fetishes, divination bowls, offigies, idols, masks and ceremonial dresses. When you examine the contents of that room you are really surveying a massed field of therapeutic artillery—the batteries by which ancient physicians sought to banish illness and disease from their patients, thus staving off death. The counterparts of the native artillery in Harley Street are the

stethoscope, the bismuth meal, notebook for prescription, and a certain professional air.

"I have drawn your attention to this part of Mr. Wellcome's collection for a special reason. When we seek to represent in a museum the theories and beliefs which guided the practice of Medicine in olden times, we encounter a grave difficulty. Let me explain the nature of this difficulty. If we dress a lay figure in a policeman's uniform, place a helmet on the head, a baton in one hand and handcuffs in the other, and lay open the policeman's notebook at the page he made his last entry, we bring before our visitors such a representation of law and order as enters their understanding without any further explanation. But suppose we have merely the arm badge of a special constable at our disposal; how are we to make our visitors understand its full significance if they have never encountered a policeman in their life? That is just the difficulty we have to face in representing early stages in the evolution of Medicine; the divination bowl, fetish, amulet, charm, mascot and effigy are but the symbols of the ancient practitioner's art; each is pregnant with significance; it needs a world of knowledge to interpret that significance. It is otherwise in all the modern departures of Medicine."

The Anatomy Room contains drawings, paintings, and sculpture; and other material illustrating the history of anatomy. Near by is a case showing evidence of divination by the liver, circa 2000 B.C.

In the Hall of Statuary (Fig. 3) the armamentarium of the native surgeon is well illustrated. Here also are full series of surgical and other instruments used by



FIG. 3.—HALL OF STATUARY.

the ancient and modern Hindus, Chinese, Greeks, Romans and mediæval Europe, up to the present day.

Prominent features in this Hall are statues of the deities associated with the healing art in ancient times. At the North end are grouped those of early civilisations, including the gods of the Sumerians, proto-historic peoples of the Euphrates Valley, Babylonians and Assyrians. Prominent among these is Ea or Oannes, the earliest known deity connected with medicine, who, according to tradition, instructed the proto-historic peoples of the Euphrates Valley in science and learning about 5000 B.C. On the left are Egyptian deities associated with healing, and on the

right, representations of the fathers of medicine of India and China, together with the Aztec medical genius, Ixtlilton. At the South end are the deities of the early and classic periods of Hellenic culture.

In the Egyptian alcove on the left are reproductions in facsimile of the earliest records of medicine, dating from ca. 2700 B.C., including the medical papyri of Kahun, Ebers, Hearst, and those of London and Berlin. Close by are also early representations of deities, together with alabaster unguentaria and stone mortars used for medical purposes in ancient Egypt. In the Oriental alcove on the right will be found figures of deities associated with healing in the Far East, and, on the adjacent walls, representations of the practice of medicine in ancient Greece and Rome. Instruments employed in surgery and dentistry from the earliest times will be found in the cases under the gallery and in the centre of the hall.

In the Gallery, the history of optics and chemistry is illustrated by means of apparatus, paintings, etc. A case in this section contains drugs with the date of their discovery.

In the Portrait Gallery is a fine collection of touch pieces and documents relating to healing by the royal touch, lodestones, talismanic rings, etc., etc. This gallery is devoted largely to the personal relics of distinguished British physicians and surgeons. Their portraits are hung in association with personal relics, instruments they invented, etc. Here also is the famous collection of Edward Jenner of vaccination fame.

In the Alchemy Room the material has been arranged to illustrate the history of Alchemy and Iatrochemistry by means of pictures, drawings, original manuscripts, reproductions from ancient manuscripts, documents, models and ancient apparatus employed by alchemists in making discoveries during the past ages, which have been stepping-stones and have helped to raise the science of Chemistry to the position it holds to-day.

Some of the long scrolls are the work of George Ripley, an alchemist and Canon of Bridlington, who practised alchemy during the latter part of the fifteenth century. They depict various processes in connection with his search for the "Philosopher's Stone." The curious water-colour drawings on the walls are reproductions from manuscripts on alchemy from the thirteenth and fourteenth centuries, and depict symbolically various chemical processes and operations, such as distillation, sublimation, calcination, digestion, extraction and precipitation.

Models of alchemists' hearths come next, on which are stills and other apparatus of iron, pewter and stoneware. At the back of the hearth on the east wall, in curious shaped bottles, are specimens of the elements and their symbols known in the fifteenth century. Right and left are models of large pieces of apparatus which were to be found in every laboratory of importance from the sixteenth to the eighteenth century. The first is an "aludel" or "sublimatory," used for subliming sulphur or mercury. Near it is a still with a curious zigzag condenser called the "Serpent," used for distilling the "Water of Life" (alcohol), and the "Athanor," a furnace used when prolonged heat was necessary. The fuel was placed in a reservoir above the fire, which it fed automatically. A selection of the ancient symbols used by alchemists to represent planets, metals, elements and other substances are reproduced on the frieze, a key to which will be found at the base of the pillars. On a shelf below there are arranged and named a collection of original ancient glass apparatus employed by alchemists, consisting of matrasses, globe-receivers, cucurbits, alembics, still-heads and retorts.

On the east wall facing the entrance is a picture of Hermes Trismegistus, or the "Thrice Great," the ancient Egyptian mythological personage who is supposed to have originated the science of Chemistry. The Greeks adopted the Egyptian god "Thoth" in the Pantheon under the name of Hermes, who, according to early

historians, wrote forty-two books on science. The latest probably dates from 600 B.C., but fragments only have come down to us in the Papyrus Ebers. On the wall on the north side is a large painting representing Dr. John Dee, the astrologer, demonstrating before Queen Elizabeth and her Court at his house at Mortlake.

In the Alchemy Room the history of witchcraft, astrology and the occult sciences is also shown.

Section Nine deals with an official collection of naval and military medical material, mainly of the Great War, 1914-1918. Medical and surgical supplies, models, statuary and pictures form the bulk of the collection. A group of mediæval instruments, appliances and pictures illustrates the development of medical and surgical procedure.

The Lister Collection is installed in the south-west corner, and it is grouped in association with the famous Ward, of which an original section is shown, and in which Lord Lister applied his principles of antiseptic surgery.

In the front part of the ground floor most of the objects, appliances, implements, apparatus, books and documents relating to the history of Pharmacy have been arranged :—

1. An English alchemical manufacturing laboratory of the sixteenth century.

This reconstruction of the laboratory of an alchemist of the sixteenth century is one such as Paracelsus might have worked in. Mysterious, gloomy and dark, with strange animals and fishes depending from the roof, casting fantastic and eerie shadows on the old stone walls, it offers a glimpse of the surroundings of the worker in Science some four centuries ago. Most of the equipment in this laboratory was in use in England until quite recently for the production of medicaments.

2. A London chemist's shop, eighteenth century.

The shop front is the original of the pharmacy established in 1798 by John Bell, father of Jacob Bell, founder of the Pharmaceutical Society. The vases and ewers in the interior are of old Davenport ware, the ointment jars of Staffordshire stoneware, and the essence bottles of early red Bohemian glass. The laboratory in the rear contains the original ancient fittings of a pharmaceutical laboratory of the eighteenth century that once stood in Russell Street, Covent Garden, London. The preliminary discussions regarding the formation of the Pharmaceutical Society of Great Britain took place in this building.

3. Apothecary's shop. 1625.

4. Italian pharmacy, sixteenth century.

5. A Barber-surgeon's shop, sixteenth century. Reconstructed from a picture of the period.

6. Native model of a Chinese drug shop.

7. An original Turkish drug shop of the seventeenth century, transferred from the Old Drug Bazaar in Constantinople, and reconstructed in the Museum.

In the various cases are copies of *Hortus Siccus* and early herbals; *Terra Sigillata* and the history of this ancient medicament from 100 B.C., together with specimens of the "Sealed-Earth" of various kinds used in different parts of Europe; *Theriaca*; rare and curious drugs, including bezoar stones, eye-stones, Chinese ginseng root, poisoned sucking-stones, and drugs used by native witch-doctors; curious specimens of jalap having a natural resemblance to birds, animals and reptiles; specimens of drugs showing adulteration; ancient Egyptian drugs excavated from a grave, 1500 B.C.; mandrake roots.

In the wall cases at the north end are a series of chemicals, drugs, etc., illustrating the pharmaceutical knowledge of Hippocrates, Galen, etc.; the treacle of *Andromachus*, the history of this ancient preparation, which dates from 134 B.C., and specimens of the various ingredients used in its composition, and also of the treacle as prepared in Constantinople at the present time; mediæval drugs, etc., etc.

E. N. FALLAIZE.

On 24th May, by kind invitation of Mr. Henry S. Wellcome, a meeting and reception of the Royal Anthropological Institute was held at the Museum, the invitation being extended to the members of the Prehistoric Society of East Anglia, who had attended the London meeting of the Society held at the Royal Anthropological Institute that afternoon. Prof. G. Elliot Smith gave a brief account of the magical and medical aspects of the anthropological material. A cordial greeting cabled by Mr. Wellcome from America was read by Captain Malcolm, the curator, and after a vote of thanks to Mr. Wellcome had been moved by Lord Onslow, the Fellows and other guests then inspected the collections. E. N. FALLAIZE.

## America: Religion.

Parsons.

**Witchcraft among the Pueblos: Indian or Spanish?** By Dr. Elsie 70  
Clews Parsons.

*Beliefs and Practices.*

In the Zuñi origin myth\* a witch pair, male and female, come up from the under worlds after the other people and bring with them two gifts—death to keep the world from being crowded, and corn. The tradition implies that in Zuñi opinion witchcraft is magical power which is not necessarily differentiated into good or evil. In fact the supreme Zuñi priesthood (the Town chieftaincy or *kyakweamosi*) is associated with witchcraft and the Sun priest (*pekwin*) himself may choose between their rules (*haitoshnawe*) and the rules of the East side priesthood (*pattok ashiwanni*) for his governance. Pauutiwa, the chief of the kachina or mask Spirits, is called in one of his impersonations the *koko* (kachina) witch (*komhatikwi*). "The best men of the pueblo may be witches," I have been told in Laguna, and there, as in Zuñi and in other pueblos, charges of witchcraft have been brought against high officials. The Pueblo curing societies work against witchcraft, but there are said to be society practices in black magic as well as in white, particularly among the clown societies. In short, although black magic is plainly distinguished from white magic and the witch is he or she who is habitually engaged in the practice of black magic, witchcraft may be practised by any person or by any group.

There is individualistic practice of witchcraft, but witchcraft also runs in families, and in several towns there is believed to be a society of witches which is organised like any other society, with the same officials, in Zuñi terms, with *mosona*, *pekwin*, *pitashivanni* (chief, crier, guards). Members, it is said at Laguna have to obey the orders of their officers, orders to go out and make people sick. To be initiated the candidate must sacrifice some one, i.e. bewitch some one to death. In the instances cited to me at Zuñi the sacrificed one has always been a member of the household of the candidate, and this feature occurs also in the Keresan† and Tewan folk-tales of the witch society or witch kiva‡ group.

In the initiation, the candidate has to go under an arch or bow (Laguna) With him goes the member of the society whose type of animal transformation the candidate chooses for his own, i.e. if he wants to be a witch cat he goes under the bow with a witch cat—a variant of the familiar Pueblo pattern of society sponsor or ceremonial father. In Pueblo folk-tales going under a bow or through a ring or hoop to produce a metamorphosis is a common incident. A still more common means of metamorphosis is by putting on the skin of the creature one

\* Parsons, E. C.: "The Origin Myth of Zuñi." *Journal of American Folk-Lore*, 36; 37-138. 1923.

† *Op.*, too, Noël Dumarest: "Notes on Cochiti, New Mexico." *Memoirs American Anthropological Assn.*, Vol. VI, No. 3. 1919.

‡ At Laguna and Cochiti the witches are said to assemble in caves in the mountains.

is to be changed into. Analogously in Pueblo folk-tales all the creatures become like people when they take off their skins, or, in the mask ritual, men become kachina spirits when they put on the kachina masks. The use of the bear's paw, the wolf's paw, etc., by the societies is based on another analogous concept. With bear or wolf strength or cunning the Society doctors fight against the witches. The creatures most commonly mentioned for witch transformation are cats, dogs, burros, bears, owls. In Tewa tales the hunter is decoyed by witch deer and rabbit and attacked by witch mountain-lion and eagle. In a Zuñi folk-tale the rain-priest (*shiwanni*) witch changes himself into a butterfly.

Insects are controlled by witches as their agents. They can send caterpillars or grasshoppers to destroy crops, and they can send insects into the body of a victim similarly to destroy it.\* Witches may also "send in" a piece of flesh from a corpse or a shred of funeral cloth or a splinter of bone; any sharp or pointed thing is serviceable, thorn, cactus point, glass, etc. Sending things into the body is the commonest form of witch attack, but, at Zuñi at least, witches may also attack through the ghosts (*ahoppa*) of members of the family they are persecuting. The witch will put into the ground a prayer-stick† for the ghost he is summoning. Then, calling the ghost by name, the witch will bid him draw to himself (*anayalunawe*) his living relative. "Hold him back, I want him to go," says the witch, addressing the ghost.

Epidemic is always imputed to witchcraft; but not every individual ailment. The ailment from which recovery is rapid is much less likely to be attributed to a witch than that which is lingering, on and off. A sickness not originally witch-caused may be prolonged or added to by a witch. Tuberculosis, syphilis, dyspepsia, trachoma, are all diseases which lend themselves to the diagnosis of being witch-caused,—I know of some cases of these diseases so reported,—but there is need here for a special case study before any generalisation can be made.

Besides causing sickness, individual and epidemic, and insect plague, witches can control the weather, keeping the rain off‡ or causing wind. At Laguna it is said that the wind may be raised by pulling up a Jamestown weed by the roots. Until the deep hole is filled the winds will blow. A person with a grievance against a kachina rain dancer might do this, unless he preferred to sprinkle a certain red mineral as an offering to the Wind Spirit.

Bewitching is very commonly the result of a grievance, since a witch who feels injured will retaliate. Now as you never know who is a witch, you are always careful not to give offence—unless you are yourself a witch. A reckless attitude towards others, "not caring what you say," seems to be one indication of witchhood. I cannot help but connect the very striking social timidities of the Pueblos with their witchcraft theories. Father Dumarest had the same impression. "Why are the Pueblo Indians so pacific?" he writes. "Why do they not try even to defend themselves in quarrels? Because from their youth their elders have taught§ them that nobody can know the hearts of men. There are witches everywhere." . . .

Envy is a very common motive in witchcraft. For some years before he died Gawire of Laguna, popularly called the Sun shaman (*osach cheani*), was blind, and his sister believed his blindness was due to the envy of other medicine men—Gawire was always so successful in his cures. When Tsatiselu of Zuñi was dying

\* For such use of a centipede see Parsons, E. C.: "Notes on Zuñi," Pt. II, p. 270, No. 2. *Memoirs American Anthropological Assn.*, Vol. IV, No. 4. 1917.

† The regular prayer or feather stick for the dead.

‡ Feathers of the owl and the crow are associated with witchcraft because, I was told at Zuñi, these birds keep away other birds and hence keep away the rain.

§ "Notes on Cochiti, New Mexico," p. 162.

of senile tuberculosis a member of his own *ne'wekwe*, clown society, would come in to visit him. The next morning Tsatiselu would be worse. The visitor was an envious man. A Badger-clanswoman of Zuñi told Mrs. Stevenson she believed she had been made sick by a certain one-eyed old woman who was envious of the visits she had been enjoying in a white man's house.\*

The most abusive and the most dreadful charge you can bring against anyone is that of being a witch. In some towns such charges are quite commonly bandied about; although how much colour an accused has to lend it by his behavior in general it is difficult to determine. Besides reckless speech, dishonesty in regard to property, or, still more, the possession of wealth from sources unknown,† and roaming about at night or looking into windows seem to be characters or habits open to suspicion. Lurking at night about the house where a person is sick is particularly questionable, and the house of an invalid will be watched in order to catch the operating witch.

If a witch is caught, I have been told at Zuñi, he will ask his captor not to expose him. He may offer his captor a bribe, perhaps a necklace worth as much as a hundred dollars. But the captor should refuse a bribe because the witch might feel resentful about losing his property and might proceed against his sometime captor or one of his relatives. No, the proper course for the captor is to insist on the witch "making his days," giving himself warning (*vantilaio*) i.e. stating that in, let us say, eight days or even eight months he will kill one of his own relatives.‡ Were the witch not to carry out this vow something fatal would happen to him.

Persons may labor under the suspicion of witchcraft for years without decisive action being taken against them. They are said to be more or less shunned. One night at a dance in Zuñi a woman and her daughter brought in their chairs and placed them next to a woman in front of me, the newcomer saying, "Will it hurt you if I sit down here?" She got no answer, and presently the woman next to her hitched away her seat. Thereupon the newcomer and her daughter took their chairs to the other end of the room. Mother and daughter§ were reputed to be witches. The *shumakwe* society of Zuñi used to meet in the house of their chief, Memechi. In 1911 Memechi was charged with sending a measles epidemic into the town, so the society moved into another house. After Memechi had confessed that he had used his society medicines, confessed, it was said, in order to put an end to the nagging, a kind of degree the bow-priests were subjecting him to, he was expelled from his society.||

Decisive action is taken against witches in case of a public misfortune like an epidemic or a grasshopper plague or a drought. Then some person, either long under suspicion or but freshly suspected, is likely to be tried. In such cases "war captains" or "bow-priests" (the war chiefs of Zuñi) are charged with the detection and prosecution of the witch. Formerly at Zuñi, the suspect, if caught red-handed, was taken to the house of the head "bow-priest" by his captors. Then he was hung by his arms tied behind his back to a projecting beam of the Catholic Church until he confessed. Nowadays, like Memechi, he is "talked to" by the bow-priests. This nagging is felt to be very trying. "Tell them something to get rid of them," Memechi was advised by his own family. Torture by hanging seems not to have been practised outside of Zuñi. At Laguna

\* "The Zuñi Indians," p. 394, XXIII (1901-2). *Annual Report Bureau American Ethnology.*

† For example, a certain member of the council at Taos is reputed a witch since without working he wears good clothes and, an extra touch, "he looks under his eyes."

‡ Or perhaps himself, cf. Stevenson, 394-395.

§ Here was a case of witchcraft in the family.

|| *Op. Stevenson*, p. 395.

the war captains were—perhaps still are—expected to shoot at the suspect when he is in his animal shape. This shape will then fall off and the person of the witch be exposed to view. Thereupon the witch will fall sick and in four days will be dead. In several towns stories are current of shooting at a lurking animal to hear next day of somebody in town lying disabled from a wound. In all the pueblos witches under arrangement are said to have at times disappeared. In some cases they may have escaped and lived in exile. Mere suspects have also gone into exile.

In individual cases of bewitchment the curing societies are called upon. The particular doctor is invited by a relative of the invalid to make the cure, invited with the presentation of a package of meal and with the address of "father." "His father" i.e. of the invalid, is assisted by society colleagues, who are protected from witch attack in their turn by the "war captains." At Laguna a war captain would be present during the curing ceremonial and with his gun would accompany the doctor in his search for the "heart"\* of the invalid. When a Zuñi doctor goes out to look for what the witch has concealed under the ground or in a tree he, too, is accompanied by two men who may or may not belong to his society and who go to safeguard him. War captains are on guard also at Jemez and probably elsewhere during a cure. At Zuñi two bow-priests are attached theoretically and as far as the reduced number of bow-priests permits, practically to each society, and one of their functions is to protect against witch attack.

The use of arrow points on altars and attached to fetishes is a charm against witchcraft. At Laguna the war captain carries an arrow point in a buckskin bag around his neck. In Sia and Zuñi scalp ceremonial the scalp-taker holds an arrow point in his mouth, and at Laguna men and women going out at night will carry an arrow point in like manner, admittedly a charm against the witches who are abroad at night.

The animal paws which figure on altars are also charms against witches or agents in fighting them. In this turning of the wild animals against the witches who can themselves become wild animals, may be seen the conceptual closeness between witches and medicine-men, of which we have already spoken. The connection appears again in the sucking cure of the medicine-man, he sucking out of the invalid's body what the witch has sent into it.

Ashes are also a charm or prophylactic against witchcraft. "Witches dislike ashes." When the Laguna doctor goes out to look for the heart of the invalid he rubs ashes on his body and the calves of his legs. Ashes are rubbed on the forehead, chin and legs of a new born child, according to one Laguna informant, in the form of a cross. Ashes are also rubbed on a baby's head at Zuñi, and on First Mesa anyone who goes out at night during the "dangerous moon" (December) should rub ashes on his forehead against the witches abroad at this season. In the general Pueblo waving rite of exorcism ashes are commonly used. In a Tewa witchcraft tale when ashes are dropped into the four jars of medicine the witches are brewing to kill the people with, the jars crack, spilling out the medicine.

In all the eastern towns a certain root is burned with which to smoke a patient or his room as witch prophylaxis.

It is believed in Zuñi and Taos, probably elsewhere, that witches can use hair cuttings in their black magic, so hair cuttings are burned or thrown into the river. Even the hair-brush which might have clinging to it some stray hairs is hidden away in a Zuñi house during the Shalako ceremony when there are so many Navaho house guests.

\* Which he finds as grains of corn wrapped in cotton cloth. This practice has a superficial resemblance to the European derived practice of making a figure representative of the victim into which cactus points are stuck (Keres). See Dumarest, 165.

The following witchcraft cases will illustrate some of the foregoing general observations as well as bring out the motivation of witchcraft practices and certain minor points :—

1. About 1903 there was a grasshopper invasion at Nutria (a farming colony of Zuñi). Philip was accused of sending it. Philip confessed that he had been asked to send it by Nutia, a man whose crops at Zuñi had been poor and who was envious of the good crops of Nutria. According to one informant, a person inimical to the political faction of the rain priesthood of the South, it was this group that supplied the magic Philip used to send the insect pest.

2. The same informant cited another case against the same priesthood. A few years ago they had "fixed medicine" to spoil the fruit trees of a certain person against whom he who applied for the medicine had a grudge.

3. David of Zuñi told me that, a few years ago, during a period when he herded sheep, he was afflicted for a year with a running sore in his back. His family decided to apply to a doctor. The doctor rubbed out from David's backbone a caterpillar, a worm, and a little bit of candy. The insects had been living on the candy, and the discharge was the exuding candy. The case was treated just in time, for as soon as the insects finished eating up the candy they would have gone through to the lungs and eaten them and then it would have been too late for recovery. . . . David's people gave the doctor in advance some meal for the animal spirits of his society, and, after the treatment, the family paid him substantially. David did not join the society . . . . The insects and candy were sent in to David by one of his best friends, said the doctor, as a result of envy. "I will not tell his name," said the doctor (doctors never tell the name of the witch), "but do you think about whom he might be." And so David took thought and found a friend to suspect.

4. One day, some time in 1906, Naiuri, a man who lived at Powati, came in to Laguna and started to call on Tsatsi, a Badger clan woman, the granddaughter of the Zuñi woman who introduced the Badger clan into Laguna. Naiuri went in to Tsatsi's house, a house on the east side of the Middle or plaza, by the back way, going into the dark rear room. As Naiuri entered, he saw hanging across the beam a wolf skin, the paws arranged as moccasins, with tie strings in front. Naiuri was frightened, so he went out to re-enter the house by the front entrance. After his visit he proceeded to tell the war captains of what he had seen. The war captains shot Tsatsi, and she died. Naiuri did not mention the matter to any one until Tsatsi was dead—"Until a witch is dead you must never talk about him, for he will bewitch you," remarked my informant), and even subsequently Naiuri was discreet; it was his wife who told my informant. Even before that, my informant, an elderly lady, had cautioned her daughter against letting Tsatsi ever hold her baby. People had long been suspicious of Tsatsi. She was quarrelsome and reckless in what she said of others. Besides, Tsatsi and her husband, although of poor families, always seemed to have plenty. They were supposed to steal corn at night. Their two married daughters are also regarded as thieves, one thieving in a White family where she was employed, the other in the family at Zuñi into which she married. They were not definitely charged with witchcraft. One of the women, however, was criticised for infidelity to her husband. Tsatsi was herself an illegitimate child, the daughter of a man who begot her on his wife's sister. At the time of her execution Tsatsi held a position of ceremonial distinction: as the Badger clanswoman, she worked for the kachina dancers, her mother's father being cult director.

5. In 1917 a Laguna girl of seventeen returned home from school in Santa Fé suffering from tubercular glands. She was very nervous and acted as if she had been frightened. Her people called in a Hopi doctor resident in Laguna and highly

considered.\* He said that while the girl was at school she had been whipped by order of the matron, that this woman† had two hearts and that her bad heart had followed the girl to Laguna and still frightened her. The girl admitted, for the first time, to the school whipping, showing that the doctor had been clairvoyant.

6. At Zuñi in 1917 a certain girl had two suitors. One gave her a pair of shoes which her father, disapproving of the suit, put into the fire; the other gave her a blanket dress. The girl died. Both suitors have been suspected of causing her death by witchcraft, particularly the shoes-giver because he is the son of a member of the *newekwe* clown society and his father had taught him the *newekwe* ways of black magic, from which even the *ne'mosi*, their chief, is not safe. The last *ne'mosi* had been killed, according to somebody's dream, by a group of *ne'wekwe* who lived in the same household, and gossip has it that the present *ne'mosi* is to die at their hands.

7. A middle-aged Taos man of my acquaintance has told me of two periods in his life when he has considered himself to be a victim of witch persecution. The first time was after his return to Taos from school at Carlyle. He fell sick, "there was something in his chest." His mother told him he was bewitched and advised him to get a certain Ute doctor. He wrote to the Ute agent to send the man. On arriving the Ute doctor sucked out something from the young man's chest "Did you ever see this before?" asked the doctor. Yes, it was something that had belonged to him, that he had carried for his "personal defence." The Ute doctor said, "I will make the man who sent it into you come here, and you must shoot him. He wanted to kill you, you must kill him." But the young man, being a Pueblo young man, was afraid; all he wanted was to get well. He did get well—and the witch lived on.

8. The second story is contemporaneous. For four years now this Carlyle graduate has been suffering from trachoma, which is not trachoma, he believes, but a witch-sent ailment. Did not his wife test the trachoma supposition by deliberately using his towel and basin and not catching the disease, thereby disproving the White doctor's diagnosis in favour of her own witchcraft diagnosis?‡ Her husband is greatly exposed to witchcraft because, as interpreter in Spanish and English, he has had to go to many mixed gatherings and it is at such places that witches have a chance. Since her husband has become a peyote eater§ he has used peyote water as an eye lotion whenever he goes to inter-town gatherings, and his eye is not troubled on these occasions as much as it used to be since peyote is a counter medicine, i.e. magic.

9. A Taos folktale, which is given in terms of a personal experience of half a century ago, is about a young man who, after spending the night with his sweetheart, was returning at daybreak to take his turn guarding the townspeople's herd of horses in the meadows of Taos Junction. On the road, as it grew light, he saw ahead of him a big black dog. He galloped to catch up with the dog, which looked back at him and started to run faster. As he was overtaking the dog it sidled off the

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\* Foreign doctors are likely to have considerable prestige.

† It is seldom that a white person is charged with witchcraft. Once during a measles epidemic at Zuñi, when the American doctor pointed out that the children were not dying at the boarding school at Black Rock (four miles distant) where they took his medicine, as they were at the pueblo where they were not taking it, the retort to him was that at Black Rock there were no witches because of the presence of so many white people.

‡ This may suggest to white doctors and nurses in their present health campaign in the South-west that it were well to have some knowledge of the "medicine" they are trying to displace.

§ The peyote cult has come into Taos from Oklahoma tribes during the last decade. Recently it has met with such violent opposition within the pueblo that for a time the political secular organisation was disrupted; nobody was willing to be an officer.

road, with its tongue hanging out. He shot at the dog twice and killed him. He went to skin him and inside the skin he found a person. "That's why they say that the people down at San Domingo and Tesuque [the Keres and Tewa, to the south] are witches and have the practice of turning into dogs."\*

(To be continued.)

## Britain: Archæology.

Burchell.

### A further Note on the Knole Park Settlement. By J. P. T. Burchell.

71

In MAN last year (July 1926, 72) I re-introduced to the notice of the Institute a prehistoric settlement in Knole Park, Sevenoaks, Kent, where occurs an interesting, and so far as the text-books are concerned, an unorthodox association. The original finds, consisting of polished celts, together with stemmed and barbed arrowheads, were brought to light by our Fellow, Mr. Lewis Abbott, more than thirty years ago. Similar discoveries have been made there by different people at varying intervals since then. The celts have thin butts and pointed-oval sections. According to Scandinavian chronology these celts belong to the pre-Dolmen period, but since the type has been found associated with those of thin butt and square sides, as in the hoard from Bexley Heath, Kent, proof is supplied to the effect that in England they must be considered as having survived well into the Dolmen period. This is likely enough since the celt with thin butt and pointed-oval section was in universal use over Britain at the time the Dolmen influence first made itself felt. Owing to the lack of any practical superiority of the celt with thin butt and square sides over its predecessor, coupled with the fact that the first phase of the Dolmen period was of short duration, the celt with thin butt and pointed-oval section persisted as the type tool of this country. The grave furniture of the second phase of the Dolmen period in Scandinavia, that of the passage-grave, is typified by the celt with thick butt. This form was not adopted in Britain, where celts with thin butt and pointed-oval section continued to flourish, as exemplified by the finds from Seamer Moor, in the North Riding of Yorkshire. It should be mentioned that in the Seamer Moor burial, which was found under a slab in a limestone cairn within what seems to have been a long barrow, there also occurred celts with expanding edges and incurved sides, together with beautifully-worked kite-shaped arrowheads. In the passage-graves of Scandinavia there occur, in addition to the celt with thick butt, narrow-bladed daggers, shaft-hole axes with expanding cutting edges and incurved sides, together with hollow-based arrowheads. At what time and by what means the use of metal reached western and northern Europe are much debated questions; but I submit that some of the artefacts of the passage-grave period, both in England and Scandinavia, are direct copies in flint of then existing metal types employed in more southern lands. The cist period in Britain, the third and final stage of the Dolmen cult, is definitely of the Bronze Age, though in Scandinavia we find the actual use of that metal still deferred; there the celt with thick butt still survived though the daggers had developed broad blades. The Knole Park settlement, by reason of its stemmed and barbed arrowheads, so typical of the Æneolithic period, cannot be much earlier in date than the time of the round barrows, the third and final phase of the Dolmen period. The celts with their thin butts and pointed-oval sections show that the settlement was occupied by the direct descendants of the pre-Dolmen inhabitants of these islands, and that they were under the influence of an alien race, as with the dwellers of Bexley Heath before them. I would

\* Parsons MS.

mention that the arrowheads figured in MAN, July 1926, No. 72, page 114, have been given to the British Museum by their respective finders, and that Mr. Lewis Abbott has also generously presented an example of the celts recovered by himself when he made the interesting discovery of the Knole Park settlement.

J. P. T. BURCHELL.

## Africa, South : Technology.

Schapera.

### Bows and Arrows of the Bushmen. By I. Schapera, M.A.

72

In his very interesting paper on "A New Classification of the Bow and Arrow in Africa" (*J.R.A.I.*, 56, 1926, pp. 259-294), Mr. L. S. B. Leakey appeals for further details of bows and arrows from Africa; and it is partly in response to this appeal, partly in order to draw attention to the complexity of types of arrow found among the Bushmen, that the following notes are now published. They are based mainly on an examination of the extensive collections in the South African Museum, Cape Town, and the Albany Museum, Grahamstown, both of which were inaccessible to Mr. Leakey; I have also drawn upon published descriptions which supplement my own observations. To the Curators of the Museums mentioned I am much indebted for their kindness in giving me access to the collections under their care. I have adopted here as far as possible the terminology and principles of classification used by Mr. Leakey, which seem to afford a most useful basis for both comparative and special investigations.

I. Bows.—In his classification of Bushman bows, Mr. Leakey includes them in his sections B. I. (a)—*Frontal Bows*, *Eyeleted frontal*, and B. IV (c)—*Knotted String Bows*, *Unclassified*. Unfortunately, he does not state among which "groups of Bushmen" the former type occurs; from his distribution map on p. 295, *op. cit.*, it would appear that the specimens he examined came from Griqualand West, where the *!ke* tribe of Bushmen formerly existed, but none of the bows from this region that I have seen show the characters specified by him, nor have I been able to find any records of this type of bow in the literature available. All the Bushman bows that have come under my observation fall into the class of *Knotted String Bows*.

These bows are, on the whole, fairly crude and of simple make. They are usually prepared from the wood of the *Grewia flava*, a thin length of which is cut and roughly shaped in such a way as to be thickest at the centre and gradually taper down at the ends almost to a point. The string

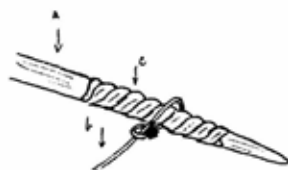


FIG. 2.—ATTACHMENT OF STRING TO OTHER END OF BOW-STAVE.

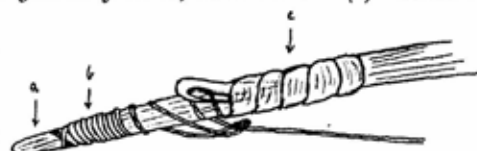


FIG. 1.—ATTACHMENT OF STRING TO BASAL END OF BOW-STAVE. a. STAVE. b. STRING. c. SINEW BAND OR COLLAR.

is generally made from two thin sinews twisted together, but among some of the north-eastern Kalahari tribes wood fibre twisted together to form a strong cord is used instead. The string is attached by a simple slip-knot and wound tightly several times round the basal end of the bow-stave, to which a small leather collar or sinew band is usually fixed to prevent the string from slipping when hitched over it (Fig. 1). The stave is then bent and the string knotted to the other end, where it is kept in place by a leather band (Fig. 2). The bow is kept permanently strung. Its stave is frequently strengthened with additional sinew bindings, especially round the centre, which prevent it from splitting and also form a convenient grip for the hand.

II. ARROWS.—Mr. Leakey classifies all the Bushman arrows under his section K. III.—*Foreshafted Unfeathered Arrows*. This is not strictly accurate, as there are several different types of Bushman arrow, which vary in detail and complexity, nor is feathering altogether unknown.

(a) The simplest type of arrow was one formerly used by the Cape Bushmen, and it does not seem to have extended unmodified further north than the Orange River. It consists of a main shaft of reed about fifteen inches long, notched at one end to receive the bowstring, and of a head about six inches long. The latter

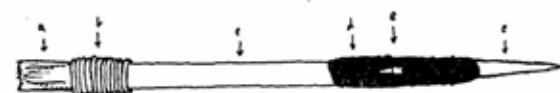


FIG. 3.—a. MAIN SHAFT OF ARROW. b. SINEW BINDING AT CONNECTION. c. HEAD OF ARROW (BONE OR WOOD). d. COATING OF POISON OVER SINEW BINDING. e. QUILL BARB.

and is inserted into the hollow of the shaft. At the connection there is a binding of sinew round the end of the shaft, which prevents it from splitting and also keeps the head in place. The projecting end of the head is pared

down to serve as a point. In many arrows of this type is found a small piece of quill fixed about an inch and a half from the point so as to act as a barb, and neatly fastened in place with a binding of sinew. All this portion of the head is carefully smeared over with poison (Fig. 3).

(b) In the type of arrow just described there is no foreshaft, but a modification resulting in a foreshaft was produced by cutting the head off square about three inches from its junction with the shaft and making there a notch in it, instead of pointing it. Into this notch is inserted and gummed down a small triangular point of flaked stone such as agate or chalcedony; it was only in more recent times, when iron and then glass became available, that these were substituted.

(c) Still a further modification of this is the type of arrow which, with a few minor variations in detail, is found among practically all the Bushman tribes. Its main shaft is also of reed, with a simple notch at one end to receive the bowstring. Into the hollow of the other end is inserted a foreshaft of bone or quill, occasionally of wood, varying in length from two to six inches, and kept in place by a tight binding of sinew round the end of the main shaft into which it fits. The other end of this foreshaft fits into what may be called a link shaft, also of reed, about an inch long. Finally, into the other end of this link shaft is fitted the point of the arrow, which is about four inches long and usually barbed. The whole link shaft is completely bound over with sinew. The point is made of either bone or iron; bone is found mainly in the southern arrows, but is not restricted to them, while iron appears to have been a later introduction (the Bushmen do not work their own iron, but barter it from the neighbouring Bantu), and is now used by all the Bushmen wherever obtainable. The poison is generally smeared over the whole point, including the sinew binding on the link shaft or reed section

which keeps it in place; but in the South African Museum there are arrows of this type from the Northern Kalahari

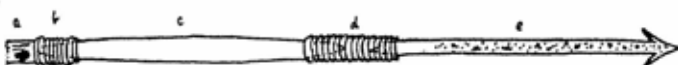


FIG. 4.—a. MAIN SHAFT OF ARROW. b. SINEW BINDING AT CONNECTION. c. BONE OR QUILL FORESHAFT. d. LINK SHAFT OF REED WITH SINEW BINDING. e. HEAD OF ARROW (BONE OR IRON).

(Kung Bushmen) where the poison has been merely dotted over the bone point (Fig. 4). In many arrows of this type is also to be found the small quill barb already noticed under (a).

There are several variations of this type, two of which are noticed by Mr. Leakey (*op. cit.*, pp. 281-2), but the general principle is the same throughout. It is a

far more complex arrow than those of the neighbouring Bantu tribes, and is remarkable for the ingenuity of its structure.

(d) What is perhaps a different modification of the simple type described under (a) occurs among the tribes in the region of the Kaukauveld (*i.e.*, among the *Auin*, *Naron* and *Kung*, and perhaps among some of their neighbours), in the shape of the very interesting *reversible arrow*, which appears to be altogether unknown to Mr. Leakey.

Among the *Naron* this is very simple in structure. It consists of merely a main shaft of reed and a bone head. The latter is pared down at one end to a sharp point and rounded off at the other end. Both ends can be inserted into the hollow of the reed shaft; and when the arrow is being carried in the quiver the pointed end, which is also the poisoned end, is turned into the shaft for safety and the rounded end protrudes; but for shooting the head is reversed, so that the rounded end is in the shaft and the poisoned end protrudes.

The *Auin* form is somewhat more complex. In addition to the main shaft there is also a small link shaft or section of reed. Into one end of this is inserted a thin piece of bone blunted at the tip, while into the other end is inserted a similar piece of bone but pointed at the tip and poisoned. Both pieces of bone fit into the hollow of the main shaft, and when the arrow is not required for use the blunted piece forms the projecting end of the head and the poisoned piece is in the shaft, but when the arrow is to be used for shooting the head is reversed, so that the blunted piece is in the shaft while the poisoned piece forms the projecting point. Fig. 5 shows this type of arrow with the pointed piece projecting. The *Kung* arrow is very similar to this, but differs in that the two pieces of bone are cut away at one end and these two ends fitted together and bound with sinew.

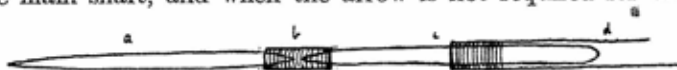


FIG. 5.—a. POINTED AND POISONED HEAD. b. LINKSHAFT COVERED WITH SINEW. c. BLUNT END, UNPOISONED. d. MAINSHAFT INTO WHICH HEADS FIT.

This reversible arrow seems to be restricted in occurrence to this region and to these Bushman tribes; I do not know of its occurrence in other African peoples. It is an extremely interesting type, and would seem to be directly correlated with the employment of poison as the effective agent of the arrow.

(e) Mr. Leakey seems to be under the impression that all the Bushman arrows are unfeathered. Actually this is not the case. I have seen feathered arrows found in use among the *Ixam* Bushmen of the western districts of the Cape\* and among the *Iauni* and *Inamanin* of the Lower Nossop (Kalahari); Schultze records and illustrates them among the Namib Bushmen†; and in a private letter to me, Herr H. Vedder mentions their occurrence among the *Kung*. Werner also records the presence of feathered arrows among the *Kung* and *Heikum*, but gives no details.‡ In the arrows seen by me the feathering consists in merely a single feather, both ends of which are tied to the shaft in the manner classified by Mr. Leakey as *Whole Feather Tied Feathering* (see Fig. 6). As this feathering frequently occurs in arrows possessing a foreshaft, it would seem that on this point Mr. Leakey's classification may need some revision.



FIG. 6.

\* Cf. Lichtenstein, "Travels in South Africa" (1812), Vol. II, p. 196; Hahn, "Die Buschmänner," *Globus*, 18 (1870), p. 104.

† L. Schultze, "Aus Namaland und Kalahari" (1907), p. 102 and fig.

‡ H. Werner, "Über die Kung- und Heikumbuschleute," *Zeits. f. Ethn.*, 38 (1906), p. 258.

It should be noted that Passarge\* and Pösch† both maintain that the feathered arrow was an original Hottentot trait which spread to the Bushmen. As I have already touched upon this question elsewhere,‡ I shall only say here that the Hottentot arrow is itself identical in every respect with that of the Bushmen described above under (b). It is difficult, therefore, to understand why the presence of the feather should be regarded as a sufficient difference between Hottentot and Bushman arrows to justify the conclusion that wherever it occurs in Bushman arrows it must be attributed to Hottentot influence. Moreover, not even all the Hottentot arrows are feathered. My own opinion is that this type of arrow is a culture element common to both Bushmen and Hottentots, and that the explanation of the feathering must be sought elsewhere—but I do not as yet feel capable of giving this explanation.

(f) Mention should finally be made of the extremely interesting miniature bows and arrows found among the Bushmen of the Kaukauveld. In a set seen by me the bow, made of a piece of bone, was barely 10 cms. long, and the arrows, for which sharp thorns were used, were small in proportion. They were covered with a coating similar to the poison used by these Bushmen for their larger arrows, but, unfortunately, I neglected to have this analysed. There were in all some forty of these arrows, wrapped up in a piece of skin and kept in a tiny quiver. Similar arrows described by previous writers consisted of a stalk of grass about 6 cms. long and a point of bone or hard wood about 4 cms. long. This point is sharpened at the end which is inserted into the grass stalk, while the protruding end is blunted. Seiner§ states that the arrows seen by him were coated over with poison extracted from the well-known poison grub or beetle of the Northern Kalahari (*Diamphidia simplex*).

The range of these arrows is, of course, very limited, and different suggestions have been put forward as to their use. That they were merely children's toys may be dismissed, as these miniature bows and arrows are used only by men, who carry them concealed about their persons. Miss Bleek, whose wide knowledge of the Bushmen entitles her to speak with every authority, says that among the *Naron* these arrows are not poisoned but are used for magical purposes by the "sorcerers." "A sorcerer wishing to destroy another comes up close and shoots "at the opponent's kaross with one of these arrows blunt end foremost. The "missile falls harmlessly to the ground, but the victim dies of the magic."|| This statement is supported by the report of a case tried at Windhuk in 1912, where it was maintained, *inter alia*, that a poisoned arrow of this kind had been used against the accused. In the evidence given it was stated by several witnesses that these arrows are not poisoned but are used for "witchcraft," and "if they are "shot in the direction of an enemy, be he 100 kilos. or more away, witchcraft "will bring about his death."¶ On the other hand, it is certain from various descriptions that among some of the Bushman tribes, such as the *Kung* and *Auin*, these arrows are definitely poisoned, and consequently among German writers the name "Bushman revolver" has become adopted for these miniature sets. It is

\* Passarge, "Die Buschmänner der Kalahari" (1907), pp. 88, *seq.*

† Pösch, "Reisen zum Studium der Buschmänner," *Zeits. f. Ethn.*, 42 (1910), p. 360.

‡ "The Relationship between the Bushmen and the Hottentots," *Rept. S. Afr. Assn. Adv. Sc.*, 1926, p. 851.

§ Seiner, "Ergebnisse einer Bereisung des Omaheke," *Mitt. a. d. Deutschen Schutzgeb.*, 23 (1910), pp. 294 *seq.*

|| I quote from the MS. of Miss Bleek's work on "The Naron," which the Cambridge University Press are publishing.

¶ "Report on the Natives of South-West Africa and their Treatment by Germany" (Cmd. 9146), 1918, p. 172.

claimed that they are used as real weapons and that the poison on the arrow is strong enough to bring about the death of anybody struck by it. Full descriptions and illustrations of these sets are given by Schultze\* and Germann,† to whose accounts the reader is referred for more details. My own knowledge of them is too limited to enable me to decide as to their use.

I. SCHAPERA.

## REVIEWS.

Africa, West: Ethnology. Rattray.

*Religion and Art in Ashanti.* By Capt. R. S. Rattray, with chapters by G. T. Bennett, Vernon Blake, L. H. Dudley Buxton, R. R. Marett, C. G. Seligman. Oxford: Clarendon Press. 1927. Pp. xviii, 414. Price 30s. net.

On the first page Capt. Rattray states that it is his aim to help us to form definite conclusions as to the true nature of this wonderful people, the Ashanti. This he certainly has achieved and we can be confident that when his third volume, dealing with Law, appears, we shall have as complete a picture of them as we possess of any African people and a better one than of most. Those who are acquainted with the first volume, "Ashanti," are, of course, aware that no one but an assembly of exceptionally learned Ashanti dignitaries can have the necessary qualification to deal critically with Capt. Rattray's work; the ordinary mortal can only thank the author for leaving him after reading it so much less ignorant than he was before the fruits of his researches enlightened him. Every page betrays the author's exceptional qualifications for field work, his unparalleled knowledge of the country, its people and their language, and his sympathetic nature which invited those precious confidences by which his readers profit. We have to deal with a record of that kind of work which is at present most urgently needed in the African field: the intensive study of a single people by a man well fitted and equipped for the task, ready to devote several years to its achievement. Potential workers of this stamp are not lacking in the Colonial Service; it remains for those at home who may profit by their labours to use all their influence to give them an opportunity of showing their mettle.

Capt. Rattray approached his problem with the mind of an impartial judge and theorising does not appeal to him. He prefers to give, frequently verbatim, the opinions of his native friends, leaving it to his readers to draw their own conclusions. One wishes sometimes he would not efface

himself to such an extent. Thus when he deals with the spiritual parts of the quick and the dead we should be grateful for a little more guidance from such a high authority. The spirit of the ancestors are *samanfo*, yet a *saman* has nothing whatever to do with any kind of soul and no living person has a *saman*. Whence does this spirit come and what is its nature? One is naturally tempted to search for enlightenment among other West African people—even if they be Bantu. Now, in Kongo, the human shape is something quite distinct from the body as represented by flesh, blood and bones; it is considered an impalpable attribute. Is it not possible that the shape should be freed to become a *saman* after death? The fact that *saman* is also a ghost makes this hypothesis the more probable. Or, is the *saman* the equivalent of the posthumous *chingvuhle* of the Ba-ila? If I remember correctly, Capt. Rattray does not deal with the shadow in his work. On p. 154 Capt. Rattray points out that there is no clear line of demarcation in his informants' mind between *okra*, soul, and *sunsum*, what one might call the double. The man of little learning feels inclined to draw again on the Kongo and to attribute to the Ashanti souls the same distinction as he has found in that country: the equivalent of *okra* is there the spiritual soul, the soul that wills and thinks, while the *sunsum* is a sensory soul whose function is to perceive through the senses. In both places the double can leave the body in life time, as during sleep, and can be a witch, while the *okra* has even after death to be separated from the blood, in Ashanti by invocation ("so-and-so, I separate your soul [*okra*] from us [i.e., from the *abusua*]") in Kongo by the more materialistic process of desiccation. In both cases the destination of the sensory soul after death could not be ascertained.

After a valiant attack on the use of the word *fetish* which has been such a nuisance to all of us, Capt. Rattray suggests that the word *suman* should be substituted for

\* Schultze, "Aus Namaland und Kalahari" (1902), pp. 665 seq.; fig. on p. 666.

† P. Germann, "Der Buschmannrevolver, ein Zaubergerät," *Jahrbuch des Städt. Mus. f. Völkerkunde zu Leipzig*, 8 (1918/21), Leipzig, 1922, pp. 51-56; cf. E. Gretscher, "Der Buschmannsammlung Hannemann," *ibid.*, 5 (1911/12), pp. 101-2.

its narrower meaning; an excellent way out of the muddle. But in "Ashanti," p. 86, we are told that gods may almost merge into the class of *suman* and Prof. Seligman has kindly called my attention to the statement in this book (p. 11) that a *suman* may be promoted to the rank of *abosom*. It is important to know whether such cases are sufficiently rare to be disregarded. In connection with the word *suman* the author points out the antagonism which exists between these inferior spirits and the gods and draws the conclusion that, had the Ashanti been left to themselves, "fetishism" would have completely disappeared before the higher religion. I should like to call his attention to an entirely different phenomenon observed among the Western Bantu: there, too, we have this antagonism, perhaps even more pronounced, between the cult of the ancestors and "fetishism," but we have historical proof that the latter is of recent introduction (15th or 16th cent.) and has constantly gained ground to the detriment of the loftier creed. This question seems worthy of further investigation.

It is impossible to enumerate the important features of this book; we find them on every page. However, it must be mentioned that Captain Rattray gives us for the first time a full account of an Ashanti king's funeral, and throws a new light on the ideas inspiring the orgies of blood which form part of it. The Ashanti point of view may be deplorable, but the author certainly makes it plausible. The Ashanti have a different conception of life and death from ours; what for us is a plunge into the unknown, a much feared break, represents to them simply an unimportant landmark in their existence, a passage from one sphere to another. It matters little when it takes place and there may be a considerable advantage in advancing its date. The men who have been great in the land under a king prefer to die with him and pass into the "other place" with all their dignities, than to live a few years more and enter the spirit world degraded by his successor. Another ceremony about which we shall have to change our minds is that of the notorious Yam customs, which appear now as annual purification ceremonies of the nation. Nor will Capt. Rattray allow us any longer to attribute the various tabus inflicted by the native doctor to trickery, a kind of insurance against failure; we must admit the doctor's good faith when he advises his clients to abstain from certain actions which are "hateful" to the plant which is to cure them. He introduces us for the first time to funeral customs for animals and plants.

But his book carries us far beyond the frontiers of Ashanti. Every chapter is suggestive and the revealed Ashanti beliefs and customs frequently serve to explain matters which have puzzled us in other parts of Africa. His account of the apprenticeship of a witchdoctor shows how the Kimpasi society of Kongo must have originated, a tempting subject to write about if space permitted. The elders in Kongo could not explain the nature of the Bisimbi; Capt. Rattray's fairies and sprites do. It would be easy to give examples by the score.

One point in the book requires some elucidation. "A witch is powerless to use her or his enchantment over any one outside the witches' clan." *Witches'* is obviously a misprint for *witch's*. But, if so, this gives rise to the problem: how can a slave be a witch as he or she has no clan, *abusua*?

*Religion and Art in Ashanti* is a classic; it shows us what can be done and how it ought to be done. If one states that the Clarendon Press has made the form of the book worthy of its contents one bestows the highest possible praise. E. TORDAY.

Africa, West: Ethnography. Talbot.

*The Peoples of Southern Nigeria.*

By P. Amaury Talbot. Four vols. 74  
Oxford University Press. Pp. vii and 356,  
xx and 977, 234. Maps and illustrations.  
1926. Price £3 10s.

In this monumental work Mr. Talbot has classified scientifically the information we possess about the natives of the southern provinces of Nigeria (with the exception of physical anthropology) and has supplemented it with a great number of new facts collected by him during his long stay in that country. Excellent illustrations add to the value of the work and all students will be grateful to the author for his helpful diagrammatic maps and tables at the end of each chapter.

In his foreword to Vol. II. Mr. Talbot tells us that he has made few comparisons; such may have been his intention but he has been unable to repress the temptation of letting his readers benefit by his extensive knowledge of the literature of many peoples acquired with a remarkable catholicity of taste. Quotations from classics, philosophers, saints and spiritualists are strewn over every page, occasionally sufficiently irrelevant to become irritating; thus when he refers to the ability of "doctors" to control the rain, he adds "which was claimed by Empedocles . . ." Empedocles! *Que fait-il dans cette galère?* Nor are his parallel cases always fortunate, as when he calls the tabu of eating oxen

"a remnant (my italics) perhaps of the "ancient bull worship which prevailed in "Mediterranean and Central American "areas." Does he connect Sudanese natives with Central Americans? By the way, how could the latter worship bulls without possessing cattle? The new spelling he adopts for certain well known words, like "Awlawrun" for Olorun, "Awni" for Oni, etc., and the constant use of the vague and unsatisfactory word Juju are trifles on which he might have made concessions to common usage.

The most controversial chapter is the XVth in Vol. II dealing with the supersoul, as he calls the Chi. Here he seems to have been carried away by spiritualistic sympathies and to have substituted speculation for research. According to N. W. Thomas, the Chi is the ancestor (or possibly a living man of an older generation) whose spirit is incarnate in a person and this view is confirmed by examples given by Mr. Talbot himself: all that he tells us about the Chi or its equivalent amongst the Yoruba, Ika, at Ebu, Alla and Assaba, points clearly to a belief in the incarnation of the ancestral spirit or a spiritual element like the Ashanti *ntoro* and nothing more. Mr. Talbot assures us that the natives see in it "a "spark of Divinity, or a monad, which "exists in a very high spiritual state—with "God, as it is put; an Ego, which sends "down emanations through various planes "and finally on to earth. This stream of "consciousness manifests itself in physical, "ethereal, mental and spiritual bodies, etc." One feels that the writer of these lines must have read his own conception into the native mind. It is, however, quite possible that Mr. Talbot's arguments in support of this thesis will carry weight with readers less sceptical than the reviewer. Even those who disagree with him on certain points will feel that Mr. Talbot has to be congratulated on his valuable contribution to African ethnology and that we all owe a deep debt of gratitude to the Government of Nigeria for the publication of this important work in such excellent form.

E. T.

Africa, West: Ethnography. Cardinall. *In Ashanti and Beyond.* By 75  
A. W. Cardinall. Pp. 228 and xv  
plates. London: Seeley, Service & Co.  
21s. net.

A very pleasant account of an official's life in the little known hinterland of the Gold Coast, in which useful information about native customs is refreshingly tempered by amusing incidents which frequently bring home certain characteristics of this interesting people more forcefully

than many a learned dissertation. The chapters on ceremonial dances and on games are of special interest. The *tindana*, or owner of the earth, with whom we have made acquaintance in Mr. Cardinall's previous book, is again mentioned and one would like to know if he is not a survival of the head of the clan whose temporal power has been superseded by the tribal chief, or again, if he is not possibly the representative of those aboriginal chiefs, i.e., the rightful owners of the land, who were despoiled by a conquering race, but whose rights must be respected.

An excellent map and good illustrations add to the value of the book. E. T.

Siberia. Pfizenmayer.

*Mammulleichen und Urwald-  
menschen in Nordost-Sibirien.* By 76  
E. W. Pfizenmayer. Leipzig: F. A.  
Brockhaus, 1926. Pp. 341. 9" x 6".  
118 illustrations and 3 maps.

There is no disputing the authenticity of Siberian mammoths, and the archaeologist at least may swallow his *Elephas* without forebodings. This book is a belated account of the two expeditions, in 1901 and 1908 respectively, for the salvage of the two bodies whose discovery was reported to the Russian Academy of Sciences in St. Petersburg, in time for much valuable material to be secured. Only just in time, perhaps, since modern carnivores had already shown a deep appreciation of the blessings of prehistoric cold storage; the author himself refrained, apparently without effort, from following their example, though he was unable to preserve his sense of smell from the penetrating and offensive products of thawed and decaying mammoth flesh.

Most of the results of the detailed study of the remains of the two bodies have already been published, and the book under review is by no means severely scientific; but the author cannot be reproached for telling his story in his own way, and his clear narrative style carries the reader over what may seem to be irrelevancies. For archaeologists the main interest is proboscidean, but the ethnologist may find a justification of the dichotomy of the life of certain Siberian peoples, especially the Yakut and Lamut.

The Beresowka mammoth, found near the river of that name, had apparently met with sudden death by falling into an earth-covered crevasse in a deep ice-field, breaking bones, and undergoing rapid suffocation through burial in the soil which caved in upon him. Unchewed food was found on the tongue and between the

teeth, the plants eaten being grasses and flowering plants still to be found growing in the region. The extent to which the hair and wool, the skin, and the soft parts, had been preserved, made it possible, after the remains had been conveyed (in a frozen state) to St. Petersburg, to study the muscles, blood vessels, and even the nerves, of certain regions of the body. The second specimen, found practically in the bed of the Sanga-jurach River, was less complete than the first, but amongst the important parts that were obtained was almost the whole of the trunk, and

even the eyelids were preserved. Two important results of the investigation of these mammoth carcasses were the establishment of the proper orientation of the tusks of the animal, a matter which had been greatly in dispute, and the discovery that the Siberian mammoth, unlike modern elephants, had only four toes on each foot, with a phalangeal formula of 0.2.3.2.2.

The author may, even at this late period, be offered congratulations on the success of the expeditions, of the details of which his book gives an interesting and attractive account.

H. S. H.

## CORRESPONDENCE.

Britain: Archaeology.

Forde

### Excavation of the Five Mounds, Dunstable.

To the Editor of MAN.

SIR,—It may be that Mr. Hemp 77 has yet to attempt the measurement and excavation of a barrow (MAN, 1927, 67). The following facts may help him. The barrows at Dunstable, subject to erosion and human interference, are neither exactly symmetrical nor clearly delimited. Built on sloping ground into which the curve of the barrow merges it is impossible from observation at the surface to know exactly where the original edge of Barrow No. 5 lay. In a plane table and chain survey of the group undertaken in 1925 the distances between the summits were obtained and measurement of the obviously upstanding parts of the barrows made.

The diagram, Fig. 1, reproduces Mr. Little's plan from this survey. For the purposes of excavation of Barrow No. 5 it was thought wiser to extend operations over an area greater than that included within the diameter of fifty feet. We propose, therefore, to excavate the area within the hatched belt in Fig. 2, which Mr. Hemp's ruler correctly tells him has a diameter of approximately seventy feet.

Positions of finds are recorded from the observer's point of view and the urn did lie "to the left side of the head." I am sorry Mr. Hemp finds it too paradoxical that this is at the same time near the right shoulder of the skeleton.

Yours faithfully,

C. DARYLL FORDE.

May 11th, 1927.

## ANTHROPOLOGICAL NOTES.

XVIIth International Congress of 78 Orientalists.—At the concluding meeting of the XVIth International Congress of Orientalists, held in Athens in 1912, it was agreed that the next Congress should be held in Oxford. Having obtained the assent of the Vice-Chancellor of Oxford University, and the approval of the Royal Asiatic Society of Great Britain and Ireland, and of the leading Oriental Societies in France, Italy, Germany, Holland, and in America, the members of the Oriental Faculty of Oxford University are making arrangements for holding the XVIIth Congress there during the week beginning Monday, August 27th, 1928.

Coming after so long an interval, it is hoped that the XVIIth Congress may be notable not only for its truly international character, and the number of its participants, but also for the importance and originality of the communications made to it.

The Oriental Faculty of Oxford University will be grateful for an assurance of public support, and for any publicity which can be given to the proposals now made. Fuller information as to membership, arrangement of sections, and other matters, is being prepared, and will shortly be issued.

"Notes on Sinhalese Magic."—Among the publications of the Anthropological Institute advertised in the current issue of MAN is a paper by Dr. W. L. Hildburgh on Sinhalese Magic which originally appeared in a part of the Institute's *Journal* for 1908, which has long been out of print. The Institute has acquired a few copies of off-prints of this valuable and authoritative paper, which are available for sale to Fellows and others. The contents include notes on the use of iron and other materials for magical purposes, astrology, charms, amulets and offensive, curative and protective magic.



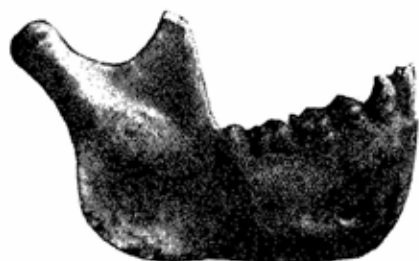


FIG. 3.



FIG. 6.



FIG. 2.



FIG. 5.



FIG. 1.



FIG. 4.

THE "DAWN MAN" OF PILTDOWN.

## ORIGINAL ARTICLES

With Plate G.

Anthropology, Physical.

Frassetto.

**New Views on the "Dawn Man" of Piltdown (Sussex).** By Prof. **79**  
fessor Fabio Frassetto, Università di Bologna. With Plate G.

The numerous and very accurate studies which have been made about the now famous remains of the "Dawn Man" of Piltdown (Sussex),\* agree on only two fundamental points; that is, in holding that the remains of the cranium are typically human and resembling modern man, and that the mandible is ape-like and plainly resembles that of the chimpanzee.

The eminent palaeontologist of the British Museum, who was the first to study minutely and explain the remains of the "Dawn Man," made a new species out of them, which he judged to be the earliest known remains of man, and hence gave the name *Eoanthropus Dawsoni*, in honor of Mr. Dawson, to whom is largely due the discovery.†

The resemblance of the *Eoanthropus* mandible to that of the chimpanzee, which was demonstrated by Woodward, and acknowledged by other authors, was exaggerated and brought to an extreme conclusion by an American zoologist, Dr. Gerrit S. Miller, who in 1915 attributed the mandible of Piltdown to a distinct species of an unknown chimpanzee, which he named *Pan vetus*. Coming to this conclusion he set the mandible apart from the remains of the skull, thus evoking a chorus of approval, especially in America and in Germany.

The subsequent researches, although numerous and conducted by able anthropologists and anatomists, have not settled the disputed question concerning the affinity of the said mandible to the other cranial remains, and to-day, while the majority of authors are inclined to accept the solution given by Woodward, although they reject the reconstruction he made on his well-known model, there are a few who are against him, and follow Miller's views.

This debated problem has interested me, and already in 1918 I regarded the mandible as belonging to the same individual represented by the other cranial fragments, and of the human type, being comparable, not to the jaw of the chimpanzee, as unanimously judged by all the other authors, but to the Orang (see my "Lectures on Anthropology," Vol. I, page 342. Milan: Hoepli, 1918).

This paper confirms the conclusions I formed then and renders more precise what I briefly expressed in 1918, when establishing the following conclusions. There is no doubt that the features of the Piltdown mandible are typical of the mandibles of apes, as has been acknowledged by the several authors. The resemblances, however, which I have found to the orang's mandible, especially that of the young, are more manifest and numerous than those which various authors have established with the mandible of the chimpanzee.

In the following table are given the principal characters of the mandible of the chimpanzee, orang, and of Piltdown man.

\* For Bibliography, see Osborn, H. F.: "The Pliocene Man of East Anglia," *Journal of the American Museum of Natural History*, Vol. XXI, No. 6. New York, November-December, 1921. Keith, A.: "The Antiquity of Man." London, 1925, Williams and Norgate. Miller, G. S.: "The Piltdown Jaw," *American Journal of Physical Anthropology*, Vol. I, N. I, 1918. Washington, D.C.

† Woodward, A. S. and Dawson, C.: "On the Discovery of a Palaeolithic Skull and Mandible in a Flint-bearing Gravel overlying the Wealden (Hastings) Beds at Piltdown, Fletching (Sussex)," *Quarterly Journal of the Geological Society*, March, 1913, LXIX.

*Chimpanzee (Pan).*

1. As a whole relatively thin, slight, light.

2. Ascending ramus implanted obliquely on the horizontal portion (corpus).

3. Semilunar notch with its greatest depth displaced ventrally towards the coronoid process.

4. Angle with curvature of a small radius.

5. The posterior margin of ramus remains narrow to the root of the condyle, in the proximity of which it rapidly widens out.

6. Corpus with rami noticeably enlarged.

7. Lower border of the horizontal portion or "corpus mandibulae" relatively thin and flattened only in proximity of the mental symphysis, where it forms, joining the homonymous part of the opposite side, a flattened surface (simian plate) with the posterior margin amply curved and a genial fossa relatively small.

8. Planum alveolare large and in the adult almost parallel to the alveolar margin.

*Orang (Pongo).*

1. As a whole relatively massive and heavy.

2. Ascending ramus implanted almost vertically on the corpus.

3. Semilunar notch less accentuated and with the greatest depth at equal distance from the coronoid and condyloid processes.

4. Angle with curvature of a large radius.

5. The posterior margin widens gradually as it passes into the condyle.

6. Corpus with rami little enlarged.

7. Lower border of the corpus relatively thick; it exhibits an increasingly wider flattening, which begins in proximity to the angle and slopes upwards and outwards and ends in the mental symphysis. Lower border of the symphyseal region with a nearly horizontal plate of bone gently convex with posterior margin having a narrow curve and genial pit (fossa) relatively large.

8. Planum alveolare curved, reduced and noticeably oblique.

*Pitldown (Eoanthropus).*

1. As a whole relatively massive and heavy.

2. Ascending ramus implanted almost vertically on the corpus.

3. Semilunar notch less accentuated and the greatest depth at equal distance from the coronoid and condyloid processes.

4. Angle with a curvature of a still larger radius.

5. The posterior margin widens gradually as it passes into the condyle.

6. ?

7. Lower border of the corpus relatively thick, widening and flattening out as in the Orang but in an even more accentuated manner. The genial fossa is relatively larger than in the Orang.

8. ?

Table I.

The following table will help the reader in comparing the different measurements in various reconstructions of Piltdown mandible :—

	Reconstructions.			Young Orang.	Modern English (Keith).
	Woodward.	Keith.	Frassetto.		
	Cm.	Cm.	Cm.	Cm.	Cm.
Bicondylar width - - - -	12.6	12.4	11.5	11.7	11.75
Bicoronoid width - - - -	11.1	10.4	9.3	8.4	9.83
Length of masticatory area - -	7.8	7.0	7.5	8.2	4.86
Width (between outer margin of second molars) - - - -	6.6	6.4	5.8	5.5	6.09
	Cm. <sup>2</sup>	Cm. <sup>2</sup>	Cm. <sup>2</sup>	Cm. <sup>2</sup>	Cm. <sup>2</sup>
Chewing area - - - -	48	39.80	43.50	45.10	24.60
	Cm.	Cm.	Cm.	Cm.	Cm.
Width of ascending ramus - - -	4.4	4.4	4.4	4.4	3.17
Projection of the symphysis - -	3.7	3.0	3.3	3.1	1.3
Height of the symphysis - - -	4.8	4.2	4.9	4.9	3.26
Length of M <sub>1</sub> (left) - - - -	1.25	1.25	1.25	1.3	1.07
Width of M <sub>1</sub> (left) - - - -	1.1	1.1	1.1	1.1	1.03
Index - - - -	88	88	88	84.62	96.26
Length of M <sub>2</sub> (left) - - - -	1.3	1.3	1.3	1.3	1.04
Width of M <sub>2</sub> (left) - - - -	1.15	1.15	1.15	1.2	0.93
Index - - - -	88.46	88.46	88.46	99.31	89.42

Having, therefore, ascertained that the Piltdown mandible has the characteristics of the Orang's mandible, especially in the young, I do not feel justified, as Dr. Miller did, in creating a new species of Orang even calling it *Pongo vetus*. I am inclined rather to believe the said mandible to be human, notwithstanding the ape-like characteristics. I do so on account of its possessing the same appearance and the same condition of mineralisation as the cranial fragments near which it was found. Being a primitive human form, and hence not yet sufficiently differentiated and harmonised with other parts, it does not cause surprise to see human characteristics of skull associated with ape-like characteristics of mandible, since the former is noticeably influenced by the preponderating development that the brain has assumed in man, whereas the latter is hardly influenced at all. Besides in palæontology, especially in fundamental and generalised forms, the association of discordant characteristics is not uncommon.

There is a fact of undeniable importance which clarifies the point in dispute, and that is the resemblance of the Piltdown mandible to that of a young Orang. The mandible utilised by me (which is a cast), made of plaster, belongs to the collection of the late Professor Klaatsch, a duplicate of whose collection is in this Institute of Anthropology.

Even on a first and cursory examination, this mandible, figs. 3 and 6, shows evident resemblances to Piltdown, with which we here establish a comparison.

The external surface of the ramus shows the same shape and almost the same diameters in the semilunar notch, in the coronoid process, in the angle and in the subcondyloid, subcoronoid and retromarginal depressions, and the slight differences which may be ascertained are due to the young age of this Orang.

The posterior margin of the ramus shows, in the immediate proximity of the angle, a light eversion as in the Piltdown mandible, which differs only on account

of the greater thinness of the margin and because of the smallness of the impression made by the internal pterygoid. This seems to be due to old age.

The endocoronoid fossa, the mandibular foramen, the mylo-hyoid groove of the internal surface of the ramus are like those of the Piltdown mandible. In the corpus, near the mental foramen, is noticeable in the Orang mandible and even in the Piltdown mandible, an oblong fossa, disposed in a sagittal direction and limited by two ridges which blend posteriorly with the inferior margin of the ramus.

The internal surface of the corpus shows, as in the Piltdown mandible, the mylo-hyoid line just visible, and the sublingual fossa, the genial fossa or basic endosymphysian with the hyposymphysian lamina very wide. The latter, having the same characteristic shape in both, resembles that of the Orang, more than that of the Chimpanzee, especially in the width and the thinness of the hyposymphysian lamina (simian plate). The inferior margin of the corpus, as in the Piltdown mandible, flattens out from the angle and widens uniformly up to the symphysis—blending with the above-mentioned lamina.

Excepting the diameters, which in the Orang mandible are smaller than those of the Piltdown mandible on account of a difference in age, the two mandibles have a very close resemblance to each other.

A reconstruction of the Piltdown mandible was attempted by grafting the symphysian region of the Orang's mandible, duly enlarged, on the corpus of the Piltdown mandible, taking care to keep the two halves somewhat more enlarged in conformity with the adult age of the Piltdown subject. We may therefore conclude:—

- (1) That the Piltdown mandible is, probably, a human mandible according with the Orang type.
- (2) That it belongs to the same individual as the cranial fragments. (Woodward, Keith and others).
- (3) That the "Dawn Man" of Piltdown represents a primitive race belonging to a genus of the Orang type, not only because of the features of his mandible but also because of the absence of great eyebrow ridges (*torus supraorbitalis*) which are the characteristic of that other "Dawn Man" of the Chimpanzee type, coeval or slightly posterior to the first, represented by the "*Homo neanderthalensis*."

This conclusion, which agrees with the polygenistic hypothesis, leads us to admit for the "Dawn Man" a phylogenetic duplication, which, according to the writer, is supported by the existence of two fundamental types, geographically distinct, to which living human races may be related; that is, the type popularly called Ethiopian (*Notanthropus*, SERGI) which has its greatest diffusion in Africa, and that commonly called Mongolian (*Hecanthropus*, SERGI) spread principally in Asia.

FABIO FRASSETTO.

#### EXPLANATION OF PLATE.

FIG. 1, 2, 3: The writer's reconstruction of the Piltdown mandible as seen in true profile (2), compared with a corresponding view of the mandible of two young Orangs, (1) and (3). The missing parts of the Piltdown mandible are indicated in black.

FIG. 4, 5, 6: The writer's reconstruction of the Piltdown mandible viewed at right angles to the plane of the molar teeth (5). Similar views of two young Orangs, (4) and (6).

(All the figures are half natural size.)

## America: Religion.

Parsons.

**Witchcraft among the Pueblos: Indian or Spanish?** By Dr. Elsie Clews Parsons. (Continued from MAN, 1927, 70.) 80

This brief list of cases\* I will conclude with two out-and-out folktales as illustrative, in another form, of current opinion on witchcraft. The first tale about the witchwife is distributed throughout the pueblos; but I will outline it from the variants I recorded among the Tewa of New Mexico; the second tale about the witch rabbit was recorded by Miss Bunzel from a Tewa of Arizona.

*Witchwife.*

Olivella Flower becomes suspicious of his wife, White Corn Girl, because she never gives him any of the wafer-bread she makes or meat from the deer he hunts for her. So one night he keeps himself awake to spy on her. At midnight she is summoned by a tap on the window. She takes out her eyes, replacing them with owl eyes, and she puts a skeleton alongside Olivella Flower to take her place. After Yellow Corn Girl goes out, Skeleton offers to help Olivella Flower. She tells him that a girl in the pueblo has died and the witches are holding a meeting "to take her out and make her live." She instructs Olivella Flower to follow Yellow Corn Girl to the witch kiva, and she gives him medicine to make him invisible. Olivella Flower takes a position of observation in the kiva hatch. He watched them, men and women, in the big kiva. They came there, those witches, from everywhere, from very far, Nambé, Cochiti, Santo Domingo, Santa Clara, San Ildefonso, Taos, Picuris. Some came as coyotes, some as eagles, some as vultures, some as mountain-lions, whatever they liked to be. When they went in they took off their skins and hung them up. The men came with meat, and the women with bread. Their chief was a Hopi. They said, "Wonder why he has not come, he ought to be here the first. Yellow Corn Girl is here." That man was the Hopi Summer Chief, and he was Yellow Corn Girl's friend. Then he came in as an eagle. He brought lots of meat. He took off his skin and Yellow Corn Girl took it and hung it up, and he sat down next to Yellow Corn Girl. He said, "We better eat, and after we have eaten we can go and bring the girl who died. When she comes to life, she can eat with us, too." That girl had died of magic (*pinan*). So they stood up two boys and they put on the skins of badgers and they made a hole to where that girl was and they pulled her out and brought her underground till they came back where the others were. They got hot water and put that girl into the boiling water, and she moved and she stood up. They told her that one of those boys she had not wanted to marry [Inferably that is why they had killed her.] They asked her why, and she did not find anything to say. Then Olivella Flower jumped down to where the girl was standing and took her by the hand. Then all the people in there vanished and Olivella Flower and the girl were standing there by themselves.† Then Olivella Flower took the girl home, to her brother's house. Her brother was sitting by the fire still crying because his sister had died. Olivella Flower called

\* Other witchcraft cases may be found in Dumarest, 163-165; and Stevenson, 394-406. Miss Bunzel has just written to me of the last witchcraft case, perhaps it were more precise to say one of the last cases, at Zuñi. During the whooping cough epidemic in the summer of 1924 "a schoolboy confessed to having caused the epidemic by placing red eggs in various houses. In each house where he placed a red egg a child died. The reason for using red eggs was that people spit blood when they cough." (Red is in general associated with witchcraft by the Pueblos.)

† In a variant which omits the incident of reviving the buried girl there stands in the middle of the floor a large bowl containing water and a human heart. "When they are going to become witch they take out the heart from the one they like best, father, mother, sister. That heart they put in the bowl," over which they have to jump to transform into animal. This night when they jump they remain untransformed, because, says their Chief, somebody is spying on them.

out, "Here I bring your sister!" Those *pinan* people took her from where she was buried and made her live, and I jumped down. I did not know what that Hopi Summer Chief was going to do to her. The people disappeared and the kiva disappeared and we stood up alone. Her brother said, "Thank you, Olivella Flower, for bringing my sister." After this, for this girl night was day and day was night and in the night she worked. Then after a long time she died again . . . Olivella Flower went home and lay down waiting for his wife. Then Yellow Corn Girl came, but she was ashamed to go in. But the day was coming and she was ashamed to have the people see her, so she went up and went down and lay down in the middle of the floor with her arms over her eyes. Olivella Flower said: "Yellow Corn Girl, why are you sleeping there? Come to your bed." She did not move. Then Olivella Flower said, "What shall I do?" He went to call Yellow Corn Girl's relatives. All were thinking that there was something good for them, that Olivella Flower had killed a deer. They came and he told them to sit down, Yellow Corn Girl was still lying down there. Her relatives asked what was the matter with her. Her father scolded her. He made her get up. He held her by her hair and pulled her head back. Olivella Flower said, "Now you will see with your own eyes and not think that I am merely wanting to talk about her." They straightened her up, they saw that she had yellow eyes. "Here I have her eyes. Just see!" He held out his hand with the eyes in it and showed them to everybody. As they straightened her up she died of shame. Her relatives said, "We thought she was a good girl. We are not sorry for her, you need not bury her, throw her in the yard so the dogs and coyotes can eat her and the flies."\*

*Witch-Rabbit.*

Yellow Boy does not want his sister, Yellow Corn Girl, to get married, nor does he himself want to get married. One day there is a light snowfall and he goes rabbit-hunting. He chases a jack-rabbit into a hole in the cliff. And he himself falls into the snow-covered hole and breaks his leg. "Some one was sitting way back in the hole looking at him. He wore rabbit ears. He was the jack-rabbit, who had changed into a person . . ." Badger comes along and finds Yellow Boy. "Poor grandson, how did you get down here?" "The rabbit I was chasing ran down into this hole and there was a person sitting way back in the hole. He just put his head down and never looked at me. He was wearing rabbit ears," he said, "and whitewash all over his body." "Where is he now?" he said. "I was watching this person and a little later there was a little fly that went out of this hole. That person turned himself into a fly and flew out." Then Badger asked the boy, "Do you know who is the person?" "Yes," he said, "I know who he is. He is from the same village that I am from. He is from the Corn Clan and he has a sister. He wanted me to marry his sister, but I did not want the girl for my wife. That is the reason why he wanted to kill me." The Badger said, "Yes, that is true. I heard about it. The girl wanted to marry you, but you did not want to marry the girl and that is the reason he wanted to kill you. I know all about it."

Badger goes and gets his root medicines and his doctor's outfit and returns and cures Yellow Boy with song and ointment. Meanwhile Coyote passes by and Yellow Boy sends him to his house to tell his family the news of his accident. Instead, Coyote tells Yellow Corn Girl that her brother has sent him to marry her. After being scolded by her mother, the girl leaves home and joins Coyote, who shows her how to transform herself. He went into the back room and brought

\* Variant: Her relatives say, "We can not help you. All we can say is to burn you with wet wood." So they went out for wet wood and brought in lots of wood and put her in the middle and burned her.

out something, some kind of wheel like a big ring. He talked to it. He laid it on the ground and he went in again and brought out some kind of a bundle. He laid it down by the ring. Then he put up the ring. "Now you just jump right over (through?) this ring," said Coyote. "Do this way. Just watch me." He put his head down by the ring and just turned himself over the ring. There was an owl sitting on the other side. He had turned himself into an owl. Then he jumped back. Then he said to the girl, "You do the same." She did it and there was a big wolf sitting there. . . . He was a witch Coyote and he taught the girl how to turn a person into a coyote or anything else, and how to make a person sick and how to kill a person.

Now Coyote gives a sharp little spindle and tells her to go and spin it over the heart of her sleeping mother and brother and take out their hearts. So Yellow Corn Girl changes first into a coyote and then into a fly to go into her mother's house. Late at night she went there and stood in the door and thought what she should do to her mother. She loved her mother very much, but she was angry because of what she had done to her. She went to her mother and span the spindle over her heart and took the heart of her mother. Then she went to her brother and span it and took out his heart, too. Then she went back to the Coyote. "Did you bring them?" "Yes," she said. "Well, now let us see them." Then he took them and he took arrows and they both shot and they killed their hearts. That is the way the girl killed her mother and brother. Next day her mother and brother died.

After Coyote is killed by the hunters, Yellow Corn Girl returns to the town and marries a man, and has a baby who grows up miraculously quickly and is instructed in witchcraft by his mother. "After this there were witches. There were never witches before the girl married Coyote. That is the reason why people are witches now. They have been taught by Coyote."

#### *Indian or Spanish?*

In Pueblo folk tales, as in Plains Indian tales, Coyote is frequently the arch trickster, so holding him responsible for the introduction of witchcraft is characteristically Indian; but what of other features in this tale and the preceding, as well as in the foregoing account in general: causing sickness by image or by injection, killing relatives, the witch assembly, transforming into animal form by putting on an animal skin, or jumping through a ring or under a bow,—are these European or Indian features? Belief in animal metamorphosis is certainly both European and Indian; transformation by ring seems more European, by skin, more Indian (although this can be found as a mediæval belief). The witch assembly is, of course, a European idea, but it is so thoroughly worked into the Pueblo idea of ceremonial organisation that it would be rash to hold that it was not a pre-Spanish idea. Killing relatives is European, although killing by taking out the "heart" (soul) is Indian. Causing sickness is both European and Indian, but causing it by sending something into the body is Indian\*; whereas the use of an image to represent the invalid seems European.

Is the use of ashes as a witch prophylactic Spanish or native, or both? Marking a cross on the head with ashes on Ash Wednesday is a prevalent Catholic rite, one that seems to be the origin of rubbing ashes on a baby at Laguna and at Zuñi. But is it also the origin of the practice at Laguna of a medicine man rubbing his legs that he may not tire in his witch contest, or of the use of ashes in the exorcising rite of waving around the head, familiar at Zuñi and among the Hopi? Probably not.

\* See R. H. Lowie: "Primitive Religion," 176-180, for the distribution among Indians of the theories of sickness from intrusion and from soul-kidnapping.

Again, what is European and what is native in the belief that persons in high office are open to the charge of witchcraft? In early days the Spaniards were continually abusing the medicine-men as witches, the very kind of abuse and suspicion the Indians are quick to indulge in to-day. And yet even before the advent of the Spaniards, medicine may have been suspected of black magic.

In contrast with these dubieties certain miscellaneous witch beliefs and practices may be mentioned as plainly European: The belief at Taos and Laguna that witches travel as balls of fire, and the related belief that a light which is seen to vanish betokens a death in the family (Laguna, Zuñi); to catch a witch, the practice of turning one's clothes inside out, trousers, coat, etc. (Zuñi); the belief that the footfall of a witch animal is inaudible (Laguna and Santa Clara). The belief that the witch animal which is wounded is subsequently found as a wounded person I would also classify as European, together with the belief about hair cuttings and the practice in the Eastern towns of burning anti-witch root. The burning of the witch with green wood in the Tewan folk tale appears to point back to the witch executions which actually took place in New Mexico under Spanish administration.\*

In conclusion, I venture this general reconstruction. In pre-Spanish days the ceremonial groups were considered capable of black as well as of white magic, they could cause the same afflictions, they could cure and, in particular, their members could send harmful substances into the human body. Their members got their medicines through the prey animals, and, by wearing portions of the animal, were endowed with the powers of the animals, by putting on the whole skin of the animal might even transform into it. All these beliefs (except that of sending things into the body, which belief is unfamiliar to the Mexican neighbours of the Pueblos)\* were enriched by Spanish witchcraft theory, which also spread, if it did not introduce, the idea that anybody might practise witchcraft. In this connection it is significant that among the Hopi there is much less reference to witchcraft in the daily life or of its practice on the part of any evilly disposed person than there is at Zuñi or in the east. Here, I infer, as in other particulars, the Hopi are a touch-stone of Spanish influence. In other words, where Spanish influence has prevailed, witchcraft has been secularised and witch notions have tended to permeate the daily life.

ELSIE CLEWS PARSONS.

#### Assam: Ethnology.

Hutton.

**The Nagas of Assam and "The Children of the Sun."** By J. H. Hutton, D.Sc., C.I.E.

81

In his review of Mr. Perry's "The Children of the Sun" in the *Indian Antiquary* of July, 1925, Capt. Hocart lays emphasis on the chapter on the dual organisation and those that follow as the most valuable portion of the book, and describes it as part of a doctrine—a division of society into "sky" and "earth" people. He questions, however, its Egyptian origin. Now Mr. Perry makes a little use, among his mass of other material, of evidence from the Naga hills, and this constitutes my claim to criticise both on this point and on that of warfare, another of the questions dealt with.

First, then, as regards the dual system, I cannot for a moment admit that purely territorial divisions of tribes into two groups have any significance beyond the geographical one. There are two groups of Tangkhul Nagas speaking different

\* As in turn the foremost Mexican witchcraft method, bewitching through food, is unfamiliar to the Pueblos, although this belief is so strong among Mexicans that they will not eat, it is said, at Alcalde, with a strange Indian. My guess is that the method of bewitching through food did not "take" with the Pueblos, because they already had a satisfactory notion of how to send bad things into the body and because the Mexican belief clashed with their etiquette of hospitality.

dialects, having somewhat different customs and separated from one another by a high mountain range. Mr. Perry has it (p. 279) that this is dual organisation. One might equally well see dual organisation in the co-existence of Britain and Ireland. He does not mention the case of the division of the Lhotas into *Ndrengh* and *Liye*, divided by the Dayang river unfordable for half the year, in any case the traces that there are of a social dual organisation among the Lhotas disregard entirely this territorial division. Such traces certainly exist in many Naga tribes, but there does seem to be material evidence for the supposition that it is the result of an admixture of races following invasion and conquest. Thus the Ao tribe is divided into Chongli and Mongsen, often living side by side in the same village, and retaining what are different languages rather than different dialects. The words for "mother" in these two tongues obviously correspond to those used by the Angami and the Lhota in what appear to be the respective entities of the dual organisation (v. "The Angami Nagas," pp. 110 *seq.* 366, 373 and "The Lhota Nagas," pp. xxxi, xxxii), but I think that Mr. J. P. Mills's volume on the Ao Nagas has shown fairly conclusively that the Chongli and Mongsen are not a dual division of one people, but the descendants of successive immigrants into the same area, who spoke, and still speak, different languages. One cannot but suspect that the duality, apparently so marked in the Angamis and so typical of Mr. Perry's "Archaic Civilisation," with its descent from two brothers emerging from the earth at a stone,\* may be merely the result of a fusion of races, and that a similar process has had a similar result elsewhere.

Assuming, however, that there is some definite principle at work behind this fusion, which compels it to take the form of a dual system, can the explanation be found in the Naga Hills? I believe that it can. I have pointed out elsewhere the belief so prevalent in this area that a single unit is abhorrent to nature.† Thus in Kohima one stone cannot be erected alone. It is contrary to nature to put up less than a pair. In the Angami country, again, there must be two priests, as a single one would be unnatural and unlucky. So, too, among the Lhotas‡ and in many, probably all, Naga tribes, though, except by the Angami, I have not heard the reason explicitly stated. Again, when a Sema goes to found a new village he must have a companion, who goes with him to make a pair, "as it were man and wife," and this companion becomes a sort of subsidiary chief and is, as a rule, succeeded in the position by his descendants, so that two chiefly families arise in the village, as at Sparta, perhaps, or in Siam, where, as often among the Semas, the second ruler is a relation of the first and principal one (v. Fraser, "Pausanias's Description of Greece," III, 312). Among the Semas, at any rate, this system is apt to lead to a good deal of rivalry and faction, particularly if the subsidiary chief has land and dependants of his own, and a wise *archegetes* usually tries to take a poor relation of his own in that capacity, but even so the system is very apt to end in bitter feuds and hostility. This is particularly the case where, as at Seromi, the two founders are of different clans, and this bi-clan foundation, which has the great advantage of providing automatically for marriages within the village, has, at any rate in the Lhota tribe, been the prevailing form which the system has taken.§

I suggest, then, that, given a belief in the duality of Nature and in the necessity of conforming to that duality in order to obtain prosperity, the growth of some form of dual system in society is extremely probable, if not inevitable.¶ I do not, of

\* V. "The Angami Nagas," p. 110.

† J.R.A.I., LII, p. 243.

‡ "The Lhota Nagas," pp. 121, 126.

§ V. Mills, "The Lhota Nagas," p. 5, n. 1.

¶ Moreover, the form of "earth people" and "sky people," which seems to be so often taken by the dual society, seems particularly appropriate to this explanation, since the sky fertilises the earth with rain.

course, suggest that this is the only way in which a dual system may arise, as it is a commonplace that identical results may spring from entirely different origins, but I do suggest that this is the origin of some of the dual systems mentioned by Perry. This, of course, takes us no further than the question as to whence originated the idea that duality is inherent in Nature and must be observed in social life, so that society is modelled on the relations of the sexes. Perhaps in view of the propinquity of China, where the idea that Nature and the universe in general is based on and pervaded by duality is very strongly held, one may reasonably assume that the source of it, at any rate, is the same for the Naga Hills as for China.

I turn to the subject of warfare. It is not surprising that Capt. Hocart anticipates the opposition of psychologists to Perry's, and his, view that organised warfare is a custom, and not natural to mankind. The origin of human society has been not unconvincingly traced to the hunting pack by Carveth Read, and his *Lycopithecus*, once organised for the pursuit of game, is not likely to forgo the advantages of organisation when contending with rival packs.\* Anyhow, war, in the Naga Hills, consists, apart from private brawls, in casual head-hunting raids and reprisals, and also in definite states of war existing between village and village involving on occasion something in the nature of a pitched battle, and being often of very long duration. The head-hunting raid is no doubt magical in its original motive; it is a search for the "giver of life"—not, in the Naga Hills, a cowrie, though cowries are prized, but a soul. An enemy's head contains his soul, and to take it back to the village adds soul material and therefore prosperity to the village stock. Thus it is particularly important to get heads at a time of sickness or famine, or of any other misfortune that suggests loss or deterioration of the soul-matter of the village, just as among the Wa of Burma it is particularly important to get heads at sowing time in order to ensure the fruitfulness of the crop being sown. That is not to say, of course, that to Nagas, at any rate, it is not always satisfactory to add a head to the village store should an opportunity occur. On the other hand, states of definite warfare arise as a rule from shortage of land (in fact in neighbouring packs encroaching on one another's territory), and result in one or both of the opposing villages being unable to cultivate certain areas. Mr. Perry states (p. 238) that "in Indonesia . . . warfare is confined to head-hunting raids and consequent reprisals and it is hard to see that any fighting would happen if such a custom did not exist." Granted that head-hunting is a custom in the Naga Hills, and exists as such, warfare also exists, organised warfare that is not head-hunting, and to which head-taking is merely incidental. Head-taking may even, indeed, be deliberately eschewed, as in a recent war over cultivation boundaries between two Sema villages, who deliberately abstained from taking the heads of the killed. It is obvious here that war is produced by pressure of population, and it seems not impossible that in other parts of Indonesia also war has been taken to be synonymous with head-hunting because it is the head-taking aspect of it which attracts attention.

In conclusion, I would take this opportunity of correcting one or two errors which I noticed in reading "The Children of the Sun." On p. 36 some importance is attached to a supposition that the coco-nut palm must be planted in order to grow. For evidence to the contrary I would refer the author to Seward's "Plants as Travellers" in *Discovery* for April 1923. On p. 90 Mr. Perry points out that in Assam "settlements of civilised peoples have been determined by the presence of desired substances, for the ruins of vanished civilisations . . . are close to railways, and in districts producing gold and iron." The suggestion clearly is that the gold and iron which attracted the vanished civilisations has again attracted civilisation in the form of the Assam-Bengal Railway, but that line has never carried

\* V. Carveth Read, "Origin of Man" (1925 edn.), VI, § 2 (5).

either gold or iron, neither of which has been produced in Assam since the railway was planned, and must rather be associated with tea, an industry introduced first in 1837 on Chinese lines, because the tea plant was found growing wild, indigenous in Assam. It has not been yet propounded, so far as I know, that tea was a beverage of the Archaic Civilisation. Again, on p. 98 and in map 15, Perry insists on the association of polished stone implements and megalithic monuments with the production of gold and iron. In no part of Assam have megalithic monuments and polished stone implements been found in greater profusion than that in which they are found in the area inhabited by the Naga tribes. Yet not only is no iron known to have ever been worked in the Naga Hills except possibly on the veriest fringes, and that doubtful, nor any gold, though some used to be washed by Assamese in Naga Hills rivers after they had debouched from the hills, but apparently none of the Naga tribes have any word for gold, nor do they distinguish it from brass, yet they have words for animals known only to them by tradition, and they continue to erect megalithic monuments with zeal. At the same time it is not easy to see why the Archaic Civilisation should have anything to do with iron if it was responsible for the polished stone implements. It is not quite convincing to be told that the "Stone-using immigrants" came in search of iron. With their knowledge of the use of iron, they would surely have ceased to use stone implements.

On p. 198 he ascribes to the Mao Nagas, who bury their dead, the Ao method of disposal.\* On p. 282 the Nagas of Assam are stated to claim descent from a Dravidian Naga family which once ruled in Assam. No authority for this statement is quoted, nor could be, since none exists. The Naga tribes have never in the past used the word "Naga" of themselves. It is a term of opprobrium, used for them by the Assamese of the plains, and means probably "naked," possibly merely "mountainy man." So far as I know, no Nagas of Assam claim any descent from any ruler of Assam or elsewhere, and certainly they claim none from a "Naga" family. Finally, in the list of authorities Col. J. Shakespear, author of "The Lushei Kuki Clans," is confused with Col. L. W. Shakespear, author of "History of Upper Assam, etc." a decidedly less valuable authority.

I am not wishful to seem to suggest for a moment that minor inaccuracies of this sort invalidate the argument of "The Children of the Sun," but I do suggest that Perry's evidences must be scrutinised as a case offered by a pleader to a jury, and not as a judge's summing up of the facts as revealed by the evidence before the court.

J. H. HUTTON.

Britain: Archæology.

Vulliamy.

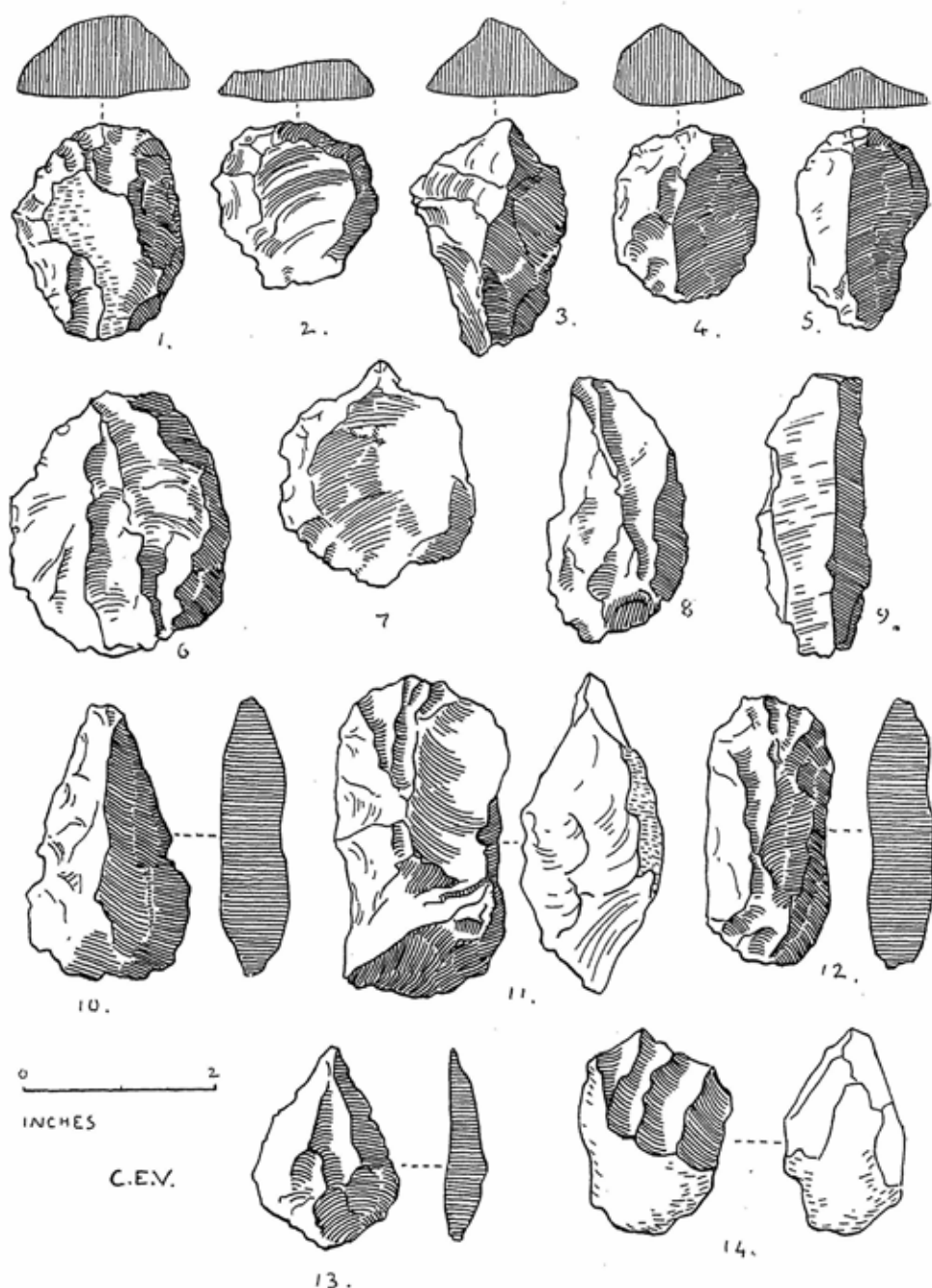
**A Note on Proto-Neolithic Flint Implements from the Chiltern Hills.** By C. E. Vulliamy.

82

To determine the cultural period of flint implements picked up on the surface, in England, is often a matter of extreme difficulty. It is too frequently assumed that the majority of surface flints may be placed in one or the other of the sub-divisions of Neolithic chronology, and too seldom realised that the evidence on which this assumption is based is by no means conclusive. After having collected and examined many hundreds of specimens from the Chiltern area, I have come to the conclusion that the majority of them cannot be assigned to the full Neolithic, but belong to an earlier period or periods; while certain pieces are at least reminiscent of Upper Palæolithic types. It would be going too far, perhaps, to claim any specimens as definitely of Upper Palæolithic date: my aim here is to show what reasons may be adduced in favour of the theory of a Proto-Neolithic origin for the typical culture of the region under discussion.

\* A similar confusion between these two tribes occurs on p. 60 of "The Megalithic Culture of Indonesia."

The general character of the worked flints of the Chiltern Hills does not correspond with the general character of those which are found on sites of the full Neolithic period. Polished celts of early form do occur, but they are exceedingly



rare, and may be regarded as intrusive types. Arrow-heads are practically absent. A number of the scrapers might admittedly be ascribed to the Neolithic period, but they are not unquestionably of that date; many, indeed, are typologically

related to Upper Palæolithic specimens. The ensemble is distinctly Campignian, if by Campignian we understand a phase which definitely precedes the true Neolithic.

The principal types may be tentatively classified as follows :—

Scrapers : (a) humped or keeled,  
(b) flat, sub-circular,  
(c) end-scrapers (rare).

Used flakes : (a) borers,  
(b) *racloirs*,  
(c) points and gravers (rare).

Steep planes or cones (not common).

Proto-celts.

Small chopping tools.

But in addition to the main series, we find rough implements resembling picks, irregular spheroids, and numbers of indeterminate pieces, some of which bear a strong, though probably fortuitous, resemblance to Mousterian types.

Patina is an uncertain guide. Its growth depends on the constitution of individual pieces of flint, and on the nature of the deposit in which they happen to lie. Flints, in the course of their history, may be shifted from one series of conditions to another. It is obvious that a flint of ancient date may, in given circumstances, display a patina similar to that on a flint of much more recent date. Probably we are inclined to overestimate the time required for the production of patina. I do not believe that patination, in the case of surface flints, need imply great antiquity, any more than its absence need imply the reverse. The flint found on the Chilterns is of variable constitution, and frequently of poor quality, with a tendency to plunge and splinter when struck. It often shows cherty or crystalline patches, resisting patination. For the most part, the implements are patinated, with a grey or blue mottled surface : in some cases, the blue patina merges in a pure lustrous white. Uniformly white specimens are not common. Iron stains are almost invariably present. Chalcedonic flint occurs rarely. The implements are made from the smaller nodules which are found on the surface, and often retain a portion of the cortex : the majority are flake-implements, with the bulbar face untouched. Striæ are not uncommon. A certain number of implements show signs of use at two widely separated periods; and it is observable, that patination is rarely present on the retouched surfaces.

Although the flint is often of impure quality, this is not invariably the case, and it cannot be said that the general lack of fine workmanship is accounted for by the nature of the material employed. Many of the roughest implements are made from flint of good quality; and, inversely, some of the finer retouching is found on pieces of poor material.

Worked flints in the Chiltern area are most thickly distributed on slopes of intermediate height, but are more frequently found on the higher than on the lower levels. The distribution seems to indicate the existence on these hills of a nomadic people, rather than that of settled communities. Flakes and implements will be found in almost any ploughed field, particularly in sheltered valleys.

Little need be said in regard to the specimens illustrated. All are from my own collection. It will be seen that, while most of them are compatible with, and some highly typical of, the culture known elsewhere as Campignian (Nos. 2, 5, 8, 12), others might be ascribed to an earlier date (Nos. 1, 3, 4, 9, 14), and none is characteristic of the full Neolithic period. No. 12 is of chalcedonic flint : with the exception of this example and of 9, 11, and 14, which are bluish-white, the

specimens have a mottled grey surface. The chopper (No. 14) occurs very frequently. The broad flake (No. 6), the borer (No. 7), and the point (No. 8) are of rough cherty flint; the others are made from flint of moderately good quality.

C. E. VULLIAMY.

## REVIEWS.

Africa, East: Ethnography. Massam.

*The Cliff Dwellers of Kenya.* By J. A. Massam. London: Seeley, Service & Co., 1927. Pp. 261, with 26 illus. and map. Price 21s. net.

83

This is an uneven book, and while there is much to criticise we are at the same time grateful to the author for giving us what he has done. We must attribute to his official preoccupations the lack of coordination which a more intensive study of his tribe would doubtless have corrected. There is a great deal of new information, but for the anthropologist it is a pity that the details are not integrated. A custom or rite, however intrinsically interesting, has little scientific or practical value unless it is related to its context, and we feel here that the background is largely missing. Various phenomena are presented to us—and let us say again that they have their value and are undoubtedly welcome—but they are not presented to us as functioning entities in a corporate unity. Thus, for instance, the *rutobeit* ceremony is described, but we are told nothing of its object or of the occasions on which it is held. Again, we read that for the two months before giving birth a woman is relieved of all her duties and is assisted by a young girl who, after the birth of the child, remains and acts as a nurse, but we are not told who the young girl is or how she is selected for her duty. In certain areas boys may be named after either male or female ancestors: but we are left in ignorance of the significance of this anomalous practice. Once more, if her children keep dying a woman may obtain permission to leave home and to live with another man, and the offspring of the temporary union belongs to the husband. But who is this other man? Is it any chance stranger or must he be a relative of her husband? No answer is given to these important questions. We should also have liked to have learned more about the itinerant smiths referred to on page 50, who from the slight reference made to them appear to resemble the Aka of southern Abyssinia, and about the nomad hunters to whom allusion is made on page 257 and who are presumably akin to the Andorobo.

For Mr. Massam's powers of observation we have nothing but praise and he often throws a new and vivid light on what might

otherwise pass unnoticed. Thus he notes that ceremonial cicatrisation on the left arm is reserved for left-handed men, a point which we do not recollect to have seen elsewhere recorded. Travellers in Africa have often been irritated by the apparent illogicality which closes a path with cultivation and fences, but as Mr. Massam points out the African cultivates in the vicinity of or across paths expressly in order that passers-by may scare away game. His observation that new insects and new birds are attracted by the bright European flowers planted by him opens up a new avenue of inquiry into the effects of contact, and generally we have found his notes on fauna both accurate and illuminating. But why has he deferred his chapter on flora and fauna to the end of the book? Surely if environment plays any part in the moulding of culture, the reader should be familiarised with the environmental background as early as possible.

The Elgeyo—or the Keyo, as they should be called, avoiding the redundant article bestowed on them by the Masai—are a pastoral people who have little inclination for agriculture and “are content each year “to risk months of semi-starvation after “a poor harvest rather than break new “land or introduce new foodstuffs.” The historical account given by Mr. Massam indicates that they are a hybrid tribe of comparatively recent origin, and they are clearly a division of the Nandi, Suk, Elgoni group, to whom the Sabei are probably also related. Indeed Mr. Massam definitely tells us in his chapter on magic that “in matters of witchcraft the Elgeyo “have always accepted the lead of the “Nandi . . . with whom they have “intermarried extensively”: and much of the Elgeyo salutation is identical with the greetings employed by the Sabei.

With the exception of the buffalo clan, the tribe is divided into exogamous totemic clans (and though little respect is apparently paid to the totemic object, we cannot agree with Mr. Massam's theory of the origin of totemism) grouped into endogamic moieties—and here we find a new and interesting fact that full brothers must marry into different groups: but it is not clear how the intermarriage with the Nandi, already alluded to, fits in with this theory of

endogamic moieties. No indication is unfortunately given of their kinship system, but from internal evidence one infers that it is classificatory, just as one has to infer from their greetings and inheritance laws (which are more complex than usual) that they are patrilineal. Mr. Massam is unfortunate in describing them as polyandrous, as they are obviously polygynous: the reciprocal right of access to the wives of members of the same age-grade does not constitute polyandry, a term which, like polygyny, does not cover relationships outside marriage. The marriage dowry is apparently paid to the woman herself, who keeps it as her own, and it is this fact which has led to the institution of adoption, by which a childless woman may secure property to herself, though the adopted child has no share in his "father's" inheritance.

Mr. Massam is at his best in describing the organisation of Elgeyo society into age-grades. Here we have a lucid and adequate account of a social system prevalent among the Nandi and the Masai, not to speak of tribes further North such as the Turkana and the Galla. He shows quite clearly how the system works, and how it is designed to meet both the military and governmental needs of the community. As with the Masai and the Nandi, the different strata of society are marked off by divergencies of ornamentation and of coiffure, and each age-group is a self-contained unit with responsibilities to society as a whole and with internal obligations towards the constituent members of the group. It is to be regretted that Mr. Massam uses the term age-clan, as it inevitably leads to confusion with the clan system, across which it cuts and which it dominates in importance. The conventional terms "age-class" or "age-grade" are surely better as being less liable to misunderstanding. Mr. Massam refers to the blazoning of shields, but does not indicate what significance, if any, must be attributed to the practice. Opposite page 200 a plate gives a variety of emblazonments, but we should like to know whether the significance is sociological, as among the Masai, or geographical, as among the Nandi.

The account of Elgeyo religion and magic is not so successful. The two chapters on this admittedly difficult subject do not show the same clarity of thought as the rest of the book and little attempt is made to differentiate between their separate functions. We learn that *Assiss*, the sun, is regarded as the high god, and that there is a rain god *Elat*, and that the souls of the departed, who are the good and bad spirits, are called *chessoloi*, a term which

Mr. Massam misleadingly translates as Satan. The exact significance of the word *chessoloi* would be of interest, as we do not recollect it in any of the cognate languages, but among the Nandi we find both *Asis*, the sun, as a supreme deity and *Ilet*, the thunder god, a word which Sir Charles Eliot tentatively referred to the Somali *Ilahe*. To the Suk, however, *Ilat*, the rain, is (jointly with *Torórut*) the supreme being and *Asis* has been degraded to the position of a subordinate deity.

Space prevents our considering the many other interesting features of this book, and we can only allude to the fact that agricultural land, except in the valley, is held by family tenure and is demarcated by stones; that terracing and irrigation are practised (which is surprising in a pastoral tribe little addicted to agriculture); that apparently the only legal death penalty is the execution of an incorrigible thief by his father, all other "crimes," including manslaughter, being satisfied by compensation. We would refer the reader to the use of abortifacients, the curious system of enumeration and the divergencies in funeral rites. The skin of wounds is approximated by thorns and tendon lacing as is the method of the Luo and the Topotha. Epidemic diseases, also as among the Topotha, are countered by the isolation of patients and contacts.

Enough has been said to indicate how much interesting material is here presented to us. It is the more to be regretted, therefore, that the maps are not adequate. The second is on too small a scale to be of any value and many of the names are misspelt, while the first leaves the numerals unexplained and has no scale. The illustrations are good and well-selected, but in a second edition we would ask Mr. Massam to omit the word "inaccessible" in his sub-title, as his book clearly proves that the term is not applicable to his mountains, however precipitous. We notice that *moiye* of the text is spelled *moyet* in the Index.

J. H. D.

#### Sociology.

Malinowski.

*Crime and Custom in Savage Society*. By Bronislaw Malinowski, D.Sc. London: Kegan Paul, Trench, Trubner & Co., Ltd. 1926. Pp. xii + 132. 6 plates. Price 5s.

This little book is in many ways a stimulating contribution to the study of law and order in primitive society. In conception and style it displays a welcome departure from the traditional type of treatise on the subject. Dr. Malinowski's analysis of various aspects of communal life in the Trobriand Islands of north-west Melanesia reveals

to us the rules of law and custom not as mere abstract conceptions embodied in a code, but as living forces, as they actually function in the life of the community. We are thus given a clear insight into the various mechanisms which regulate and control the behaviour of the Trobriander so as to preserve the order, uniformity and cohesion of his social group; and, incidentally, several hitherto unstressed aspects of primitive law in general are now brought into legitimate prominence.

For Dr. Malinowski does more than merely present us with a dynamic picture of legal systems at work. Theoretical studies of primitive law have in the main tended to concentrate on discussions of authority and jurisdiction, of crime and its punishment. Underlying most of them is the assumption that primitive man is more or less dominated by the force of tradition and custom, and that his observance of the social norms is enforced by sanctions of various kinds and degrees. But this dogmatic assumption is hardly warranted. As Dr. Malinowski rightly insists, primitive man is neither the lawless anarchist nor the custom-ridden automaton he is so often held to be, but is swayed by all the desires and passions of humanity; and certainly he is, like ourselves, far from being law-abiding merely because of the force of custom or the fear of punishment.

What actually is perhaps the most potent factor in preserving law and order in these islands is the fact that the Trobriander is linked up in a complex system of relationships towards his fellows which governs all phases of tribal life. Inherent in the social structure of the community there is a "definite system of division of functions and a rigid system of mutual obligations, into which a sense of duty and the need of co-operation enter side by side with a realisation of self-interest, privileges and benefits." It is this mechanism of reciprocal relationships, of mutual concessions and sacrifices for a common end, which really dominates the social life of the individual. "There exists," says Dr. Malinowski, "a class of binding rules which control most aspects of tribal life, which regulate personal relations between kinsmen, clansmen and tribesmen, settle economic relations, the exercise of power and of magic, the status of husband and wife and of their respective families," and these "are felt and regarded as the obligations of one person and the rightful claims of another. They are sanctioned not by a mere psychological motive, but by a definite social machinery of binding force, based . . . upon mutual dependence, and realised in the equivalent arrange-

ment of reciprocal service, as well as in the combination of such claims into strands of multiple relationship."

To illustrate the nature of these "binding reciprocal obligations," or "civil law," as he calls them, Dr. Malinowski discusses various aspects of social life, such as canoe ownership, exchange of food commodities, ceremonial gift exchange, mourning rites, marriage and kinship regulations, and is able to show that each of them is governed by definite rules and arranged into well-balanced chains of reciprocal services. In all of them, he goes on to say, "the element or aspect of law, that is of effective social constraint, consists in the complex arrangements which make people keep to their obligations."

We may, perhaps, regret the use of the term "civil law" in this connection, partly because of its limited significance in our own legal systems, but this is a matter of taste rather than criticism. Of the significance of this whole system of relationships as an effective means of social control there can be no doubt, and in his treatment of them Dr. Malinowski has rightly emphasised an aspect of primitive law that has been only too sadly neglected.

The latter part of the book is devoted to "criminal law," by which Dr. Malinowski understands "the breach of tribal law and the nature of criminal tendencies as well as of the forces which set about to restore order and the tribal equilibrium as soon as it has been upset." He shows that in the Trobriands social relations are governed by a number of legal principles, and that law and order arise as the result of a constant struggle not merely of human passions against the law, but of these legal principles with one another. Here, again, stress is laid not on a bald enumeration of rules but on the ways and means by which these are carried out. We are presented with situations which call for a given rule, are shown the manner in which these are handled by the people concerned, the reaction of the community at large, and the consequences of fulfilment or neglect. From the analyses given of these situations emerge several surprising features, such as the discrepancy which often prevails between the ideal of the law and its realisation, between the theoretical norm and the practice of actual life. It is rather startling to observe how the legal system of matriliney and the sentimental bond of fatherhood may clash in powerful conflict, to note what varying attitudes are adopted towards the breach of exogamy, and to find sorcery and suicide actively employed as legal influences. Even here life is not without its thrills!

From all this will be evident the stimulating influence which this book should exercise on future investigations into primitive law. It is in the insistence which Dr. Malinowski places on the dynamic nature of social relationships that we feel the great value of his book lies. By emphasising the organic connection between the commandments of law and custom, by indicating the importance of studying not only the structure of native legal doctrine but also the intricacies and irregularities of native behaviour which by no means conform to strict law, he has paved the way for a broader and more realistic approach to the whole subject and has brought it into line with the investigations which social psychology has been making into problems of social control in our own society.

There is, however, perhaps one criticism that should be made. Dr. Malinowski seems to imply throughout that the principles of law and order he finds at work in the Trobriands are characteristic of all primitive legal systems. This is seen especially in his criticisms of previous writers on primitive law, but is evident at various stages of his argument. It is questionable whether he is really justified, from the methodological standpoint, in adopting this attitude. It is quite probable that many of the tendencies discovered by him in the Trobriands may be present in other societies as well, but surely it is not strict scientific method to generalise on the basis of one set of observations only? As working hypotheses the conclusions drawn by him deserve every consideration, but it is somewhat premature to put them forward or to accept them as definite theories. Only after they have been applied to and tested in other societies can we regard them as general principles regulating law and order in primitive society.

I. SCHAPERLA.

#### Africa.

*The Christian Mission in Africa.*  
By Edwin W. Smith. International  
Missionary Council, Edinburgh House,  
London, S.W.1, 1926. Pp. 188. Price  
3s. 6d.

This book has been written round and about a conference of Protestant Missions which was held at Le Zoute, in Belgium. Though it includes some of the addresses which were delivered and the recommendations and resolutions on which the various committees agreed, the book is not so much a formal report as an attempt to distill from the general discussions which took place the essence of the problems confronting missionaries in Africa and the

solutions which they favoured. It is a book which should be welcome to anyone who wishes to learn briefly what the more advanced Protestant missionaries are now thinking about. It is an eminently readable piece of propaganda, and Mr. Edwin Smith, whose name is well known to all who are interested in African anthropology, must be congratulated on the skill with which he has carried out a task of some difficulty.

The last name in the dedication to "those who laid the trail" is that of Dr. Jesse Jones, and his work for the Phelps-Stokes Foundation has been so influential in administrative circles which "count," from the Colonial Office downwards, that it is not surprising to find the central ideas expressed in his reports working as a leaven throughout this book. Dr. Jesse Jones is an ardent apostle of the Americanism which Mr. Bertrand Russell unkindly epitomised in the phrase "Clean living, clean thinking and pep," and it is by virtue of his apparently shrewd, practical grasp of the business side of the question, quite as much as by his persuasive fervour, that Dr. Jones has won his position. The idea of village schools becoming centres of a vigorous community life, spreading the principles of hygiene and practising agriculture on more productive modern lines, has an immediate appeal to many who do not have to worry about applying it with the existing personnel. There were, however, some members of the Conference who realised this difficulty, as some wise remarks by Mr. Wilkie show (p. 64). To us the most serious danger seems to be that enthusiasts like Dr. Jones, supported naturally by administrators looking for quick returns, may force the pace a great deal too rapidly. To quote Mr. Russell again, "you may 'by means of hygiene save the lives of 'many Chinamen, but at the same time 'make them not worth saving,' as anthropologists have often pointed out. We note with pleasure that Dr. Jones himself lays primary stress on working *with* rather than *for* the people, and welcomes 'the clearer understanding and 'appreciation of native capacity and 'customs' and increased 'respect for 'the Africans and their past'; but we are not sure that he and others, like the hierophants at Kikuyu, do not still imagine that it is they who will adapt Christianity to the African: it should be a platitude that it is only the adaptations made by Africans for themselves which will survive.

So much of the work of the Conference was devoted to education that one regrets that the teaching of the simpler facts of

modern science received as little attention at Le Zoute as from the Phelps-Stokes Commissions, yet the case for this teaching has been admirably set forth recently by M. Brévié in a book called "Islamisme contre Naturisme" (Leroux, 1923). This book, which supplies, by the way, a useful corrective to the sweeping generalisations on French administrative ideals which is quoted from Mr. Ormsby-Gore, was sponsored by M. Delafosse, a contributor to the Conference. An excellent example of the truth of M. Brévié's main contention and of the effective way in which an African can apply a little scientific knowledge is given in the address by M. Louis Franck included in "The Christian Mission in Africa."

I rejoice to see that the Conference was opposed to the extended use of any so-called *lingua franca*, that bane of most African educationalists, and the recommendations on the teaching of European languages are sensible.

This book is concerned only with the work of Protestant missions, though it is called "The Christian Mission in Africa": this was the title of the Conference, and so the writer perhaps could hardly have adopted any other name, but it is unfortunate in view of the vast missionary work that has been, and is still being, carried out by the Church of Rome; and it will seem to some strange that, in a book with this title, no reference should be made to either of the two old native Churches in Egypt and Abyssinia.

J. W. CROWFOOT.

China: Sociology.

Wilkinson.

*The Family in Classical China.* By H. P. Wilkinson, B.C.L. Shanghai: Kelly & Walsh. 1926. Pp. 239.

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This book, the most detailed and careful work on ancient Chinese sociology which has yet appeared in English, is the result of many years of life and study in China. The fifteen short chapters deal with such subjects as Land Tenure and Tillage, Social Origins, Mother-right, Infanticide, Marriage by Capture, Names and their Avoidance, Chinese Family Nomenclature and its supposed relation to Primitive Group-Marriage, Conclusion—Exogamy founded on Blood-avoidance. The book is packed with useful information derived from the Chinese classics and dictionaries, and will form an admirable handbook. The chapter on Family Nomenclature especially is an extremely valuable list of the names of all possible relations in Chinese.

On a more or less incidental subject like infanticide in modern China the author is disappointingly meagre, and in his main

conclusion he finds himself in conflict with Paul Pelliot and Marcel Granet. In a subject where devotion to a theory is still, perhaps, apt to assert itself unduly it is of little use to hurl authority at an author's head. Mr. Wilkinson himself has undoubtedly tried to get at the facts, and his own account of his attainments in Chinese need not be taken too literally; but, even so, after making all allowances, the authority of the two French scholars remains formidable. The author quotes Granet as saying ("La Polygynie SORORALE," p. 45): "Il y a des raisons de croire qu'à l'origine une communauté comprenait deux groupes familiaux ne échangeant entre eux leurs filles: cette hypothèse est la seule qui rende compte de la nomenclature de parenté chinoise, où un seul mot suffit pour père et frère du père *fou*; pour mère et sœur de la mère *mou*; pour sœur du père et belle-mère *kou*; pour frère de la mère et beau-père *kiou*; et dans laquelle un homme ne distingue point entre son gendre et le fils de sa sœur *cheng*." His reply is in part a flat contradiction and in part a reference to another page where the difficulty seems to be barely touched upon. Granet writes in a later book ("Danses et Légendes," p. 602): "L'obligation exogamique y est conçue comme radicale—ment indépendante de toute espèce de lien de consanguinité."

The author is slightly erratic in his spelling of Chinese words, a point to which particular care should be devoted in a book whose readers will for the most part not be Chinese scholars, and there are a certain number of misprints, but on the whole the get-up and print do great credit to the Chinese printers. A. C. MOULE.

Ice Age.

Soergel.

*Die Gliederung und Absolute Zeitrechnung des Eiszeitalters.* By W. Soergel. Berlin: Bornträger, 1925. 8-25 marks. vi + 128 pp. + folder table.

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The flood of new interpretations of climatic changes of the past continues and is increasingly related to the new views about the history of the earth's surface. Professor Soergel has chosen to try to correlate his studies of quaternary terraces, etc., in Central Europe with the Köppen-Wegener ideas of the variation of radiation received by the earth from the sun according to the variation of obliquity to the ecliptic, variation of orbital eccentricity and so on. In his view not every time that astronomical conditions favoured an Ice Age have such conditions super-vened; factors such as relative disposition of land and sea, orographical changes,

shifting of the poles (on the Wegener hypothesis) have also influenced the net result.

The periods of minimal reception of solar radiation, according to the Köppen-Wegener view, lie about 600-550, 480-430, 230-180 and 120-70 thousand years back, and for Soergel these are Penck's four main Ice Ages—Gunz, Mindel, Riss and Würm. In each case there are two sub-equal minima at intervals of about 40,000 years. This scheme, Soergel claims, helps him materially towards the interpretation of terraces, etc., of rivers, and it has always been urged by Penck that his four Ice Ages were only outstanding phases in a long series of complex changes hither and thither. It is at least very interesting that Soergel's scheme allows a long interglacial period between the Mindel and the Riss; Breuil has just been arguing with great force that it is at the end of this period that the Mousterian culture developed and so it was almost certainly the period of the Strépyan, Chellean and Acheulean cultures—a long period of relative warmth. Soergel sees that it is difficult to make an accord between his ideas and those of De Geer based on the counting of the supposed annual terminal moraines of the retreating ice sheets of Sweden, though the essential difficulty really only concerns a period of overlap. How far Soergel is from various attempts that have been made to work towards quaternary dating is shown by his conclusion that the Magdalenian phase of culture is dateable 67-21, the Solutrean 72-67 and the Aurignacian 110-72 thousand years ago. It is difficult to accept such figures.

H. J. F.

America, Central. Ximenez, Scherzer.

*Las historias del origen de los Indios de esta provincia de Guatemala* . . . **88**  
por el R. P. F. Francisco Ximenez.  
Edited by C. Scherzer, with introduction and notes. Vienna, 1857. Reprinted, San Salvador (Ediciones de la Biblioteca Nacional), 1926.

This cheap and convenient reprint of Scherzer's edition of Ximenez's work, from the third folio MS. volume of the *Historia de la provincia de San Vicente de Chiapa y de Guatemala*, has been published under the patronage of Dr. Don Alfonso Quiñonez Molina, president of the Republic of Salvador. Scherzer's notes are reprinted without additions of any sort, and there is no reference to Lehmann's or any subsequent work on the *Popol Vuh*.

Ximenez's record of the Quiché origin myth shows it to have been rich in elements which connect it with the north—not only with the Toltec civilisation in Mexico,

but also with the surviving mythologies of the Pueblo area and California. The mythological evidence concurs with the archaeological in suggesting, if not a single culture-area, at least a continuous area of intermigration and trade covering Central America, Mexico, and the "South-west" in the wider sense. Trade pieces of Late Toltec pottery with cloisonné decoration have been found almost at the two extremes of this area: at Pueblo Bonito in the Chaco Canyon and at Chichen Itza in Yucatan. What we most need, perhaps, is archaeological work in Northern Mexico, to define the southward extension of the Pueblo culture. Within the recognised Pueblo area, the Mimbres sites, where northern and southern mythological elements meet in the pottery designs, may perhaps be regarded as a key district. BARBARA AITKEN.

Africa, West: Ethnography. Barns.

*An African Eldorado.* By T. **89**  
Alexander Barns. Methuen & Co.,  
Ltd. N.d. Pp. xiv and 229. Price 15s.

In this book Mr. Barns deals specially with the economic possibilities of the Belgian Congo, and in that respect it is, no doubt, of considerable value, but his chapter on the Pygmies will be of little help to anthropologists. It mentions one or two facts which would be new if they could be relied upon; but it is difficult to believe "that there is promiscuity "of the relation of the sexes," among a people whose high standard of sexual morality has been commended by all experienced travellers; and it is obvious that the making of excellent pottery by some Batwa is simply an indication that they have fallen under the influence of a higher civilisation. E. T.

Africa, West: Linguistics. Chéron.

*Le Dialecte Sénoufo du Minianka.* **90**  
(Grammaire, Textes et Lexiques.)  
Par Georges Chéron. Paris: Geuthner,  
1925. Pp. 167.

A contribution to our knowledge of the little-known Senufo language-group is welcome, though it may be meagre and somewhat superficial. Mr. Chéron's booklet has its desiderata; yet a few interesting details may be gleaned from it, apart from the purely philological information.

The Minianka, we are told, have "family names" (*félé*) as well as personal names (*mégè*). The *félé* are obviously names of totem animals, borrowed from the Bambara, a dialect of the Mande group. (It may be interesting to compare this with the fact that the Minianka call themselves *Bamana*, which is the correct form of the word

"Bambara" according to Moussa Travélé.) The *mègè* often contains two elements: one depends on the place the person occupies among his brothers and sisters in the series of births, while the other refers to some peculiarity of the bearer, the time, place, etc., of its birth, the spirit to whom it is consecrated, or the name of a relative. Some names are of an abusive nature, seemingly, as among other African peoples, to ward off the jealousy of the spirits.

The Senuso method of reckoning is vigesimal, there being a special word for 400. The week has six days, named after the markets.

The texts include songs, beast- and other folk-tales, and historical fragments.

G. M.

#### Ethnology.

Deniker.

*Les Races et les Peuples de la Terre.* 91  
By J. Deniker. 2nd ed., revised and enlarged. Paris: Masson, 1926. 75 frs.

The previous edition of this widely-known book was translated into English under the title of "The Races of Man." The present edition follows the plan of the previous one, but adds references and corrections from recent literature. M. Deniker had a great reputation for width of reading and care in appreciation of scientific work,

and until his later years little seemed to escape him. The new edition was ready in 1918 and contains a good many references up to about 1912. It remains an invaluable work of introductory reference and a picture of a phase of anthropological science which is just passing away. M. Deniker may be said to have done almost as good work as was possible with statistical methods in anthropometry, keeping the balance between biology and mathematics far better than is often the case. But one at least of his types—notably the "Atlanto-Mediterranean"—is probably a figment born of consideration of averages in a population with a strongly dolichocephalic stock sprinkled, coastwise, with broad heads who are not by any means "fringing cases" of the dolichocephals. There is no other book of the same quality that covers human diversities over such a broad field, touching morphology, physiology, linguistics, psychology and sociology, and there are few that give such help to the student who is just beginning to feel his way into a particular field. The author sheds suggestions here and there throughout the book and they are often worth pondering; it is a melancholy reflection that his mature wisdom and enormous reading is no longer at the service of his colleagues.

H. J. F.

### CORRESPONDENCE.

Egypt: Religion.

Hocart.

#### Phallic Offerings to Hathor.

To the Editor of MAN.

SIR,—Mr. G. D. Hornblower in his article on "Phallic Offerings to Hathor" (MAN, 1926, 52) reports that the incident of a donkey and a woman in *coitu* which occurs in Apuleius is illustrated several centuries earlier on Egyptian glazed faience.

The same subject is not uncommon in India. I have seen several examples, notably in Bijapur. It occurs on grants recorded on stone. The important point to note is that it is not a mere display of obscenity, but illustrates a curse or vow, just like the sun and moon and other objects illustrated on these grants. I was told that the text prayed that he who violated the grant might be called the son of an ass. Mr. S. Paranavitane, my epigraphical assistant, refers me to "Epigraphia Indica," vol. IX, plate facing page 179, for an illustration (A.D. 1065). There is, however, no allusion in the text. On page 164 we are told that "the Kuruspāl" inscription has a representation of an ass "associating with a pig, the imprecation" being explained in the text thus: *Jo anyathā karoti tasya pitā gardabhah*

"*śākari mātā* (he who acts otherwise has "for his father an ass and for his mother "a pig)."

One is tempted to bring these facts into relation with an incident at the great horse sacrifice in the Satapatha Brahmana, XIII, 5. 2. 2, where the queen lies with the dead horse and is supposed to be impregnated by it (Eggeling's translation omits the more pointed details. The text is very explicit). Further, see Nisanka Malla's inscription at Polonnaruwa, published by Mr. D. M. de Z. Wickremasinghe in "Epigraphia Zeylanica," vol. II, p. 164, where the royal caste is said to be to other castes as the horse is to the donkey.

Putting all these hints together, we may have some notion where to look for the origin of the idea. The clue is worth following up; for if the origin is ritual we should have a definite case of ritual origin of an idea which everyone would at first sight confidently declare to be the immediate outcome of an obscene mind. It would be another case of psychology going astray when not guided by history.

Yours faithfully,

A. M. HOCART.



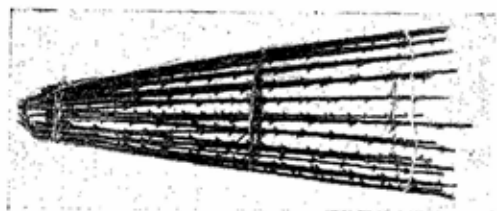


FIG. 1a.

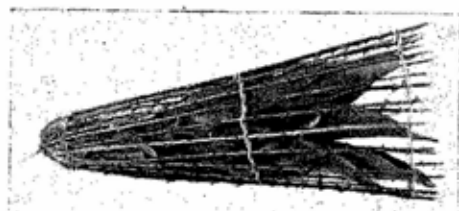


FIG. 1b.



FIG. 2a.

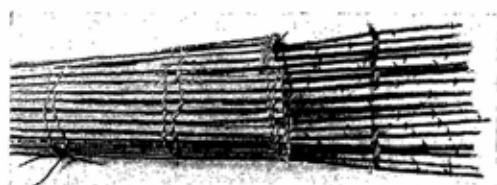


FIG. 2b.



FIG. 3a.



FIG. 3b.

## ORIGINAL ARTICLES.

## With Plate H.

## Borneo: Technology.

Swayne.

**Thorn-lined Traps.** *By J. C. Swayne. With Plate H.*

As a footnote to Mr. Balfour's article (MAN, 1926, 21) on thorn-lined traps the following information may be of interest.

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Traps of this kind appear to be known to most of the tribes of Borneo, though, as they are only used in shallow streams and above tidal water, they do not attract as much attention as the commoner types. An enquiry in the Miri district, Sarawak (which lies between Breaker Bay and the Baram River), produced three distinct varieties. The inhabitants are Melanaus, Penans, Kadayans, with a number of Malays, and a few Ibans, the last employed by the Government or the Sarawak Oilfields. All these people are familiar with the traps, but it was found that only in the Suai (Penan), Sebuti (Kadayan) and Bakam (Melanau) Rivers they were actually in use. At Miri itself the only person able to produce one was an Iban from Ulu Ai in the Second Division.

Fig. 1a is the Penan and Melanau type and was collected at Suai. It is made of undressed rotan tips, held in place by thin wefts of rotan. The length is 1 foot 2 inches and the width at the mouth 5 inches. The Penan name for such a trap is "buau suah" and the Bakam Melanau "blohor duri," both mean "thorn trap."

Fig. 1b is a similar trap, baited with leaves. The leaves are attached to a piece of native string and pulled to the top through the mouth, the traps are then hung from a branch and half submerged in the water; the fish (kluau) eats its way into the bait and is caught. Traps, similarly baited, are also used totally submerged for a different fish (kaloi). The leaves used are of various sorts from the jungle (e.g. banang, kachang) and are said to attract the fish by their scent.

Fig. 2a is the Iban type made of split rotan, showing thorns on the inside only. The length is 2 feet 2 inches and the width at the mouth 4 inches.

Fig. 2b is the same trap with part cut away to show the thorns. The Iban name is "bubu berduri," a thorned trap. It is used submerged and baited with leaves.

Fig. 3a was made by a Kadayan at Sebuti and is of a much more elaborate technique than the others. The rotan wefts for the sides are undressed. The length is 3 feet 7 inches and the width at the mouth, 7 inches. The Kadayan name is "passu unak" (a thorn trap).

Fig. 3b is the same trap showing more detail. They appear to be used for all sorts of small fish above tidal waters, anchored and with the mouth facing down stream.

J. C. SWAYNE.

## Africa, East: Dreams.

Driberg.

**Notes on Dreams among the Lango and the Didinga of the South-Eastern Sudan.** *By J. H. Driberg.*

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The following notes are the result of a few inquiries made by me at the instance of Professor C. G. Seligman. Obviously the correct procedure in pursuing such inquiries is to record the narratives of actual dreams described by the dreamers themselves, with as short an interval as possible between the dream and the narration; but this was, unfortunately, an impossible ideal, as it might be years before material of sufficient variety became available. Lack of time and opportunity, therefore, prohibited me from employing this direct method, and I was forced to be content with brief types, rather than actual dreams; but, subject to this limitation, my inquiries were made from a wide number of informants, in every grade of society and of both sexes. There appears to be a general uniformity in the matter of dreams,

and the interpretation or omen, where any was forthcoming, was stereotyped and did not differ with the various informants. At first I endeavoured to interrogate informants on the "type" dreams classified by Professor Seligman in MAN (December, 1923, 120), but I found such an approach bewildering to the natives and abandoned the method as unlikely to yield any satisfactory result.

*Lotuko-speaking Lango.*

No distinction appears to be made between the dreams of magicians and laymen and no greater power is attributed to the former.

1. To dream of being carried away in a flood. All informants say that one is frightened by such a dream, but I was unable to discover whether this fear was only a natural concomitant of the dream or whether it was due to an ill-omened significance.

2. To dream that someone kills one. This is considered a true forecast.

3. To dream of killing an elephant means that one will certainly do so.

4. To dream that one is being rained on during a journey. This may or may not happen, but one does not postpone a journey for such a dream.

5. To dream that someone's cattle have been raided by someone else. This signifies bad luck for the owner of the cattle and may involve one in a libel action with the dream-raider.

6. To dream that a snake bites one is a very bad omen. Immediately on waking one bites a piece of charcoal and spits it out and pricks oneself with a thorn. This will avert the omen and even if one meets a snake, as one surely will, it will not bite one.

7. To dream of lightning means that some of one's cattle will be killed in the next thunderstorm.

8. To dream of fire or of falling into fire has no significance.

9. To dream of a tooth being knocked out by a stone indicates that the accident will happen.

10. To dream of meat has no significance, though it is a common dream.

11. Dreams of flying or of climbing are said to be unknown.

*Didinga.*

The *ngare* or magician does not have a different class of dreams from those of the laymen, but all his dreams have a much greater significance, and, if the significance is ill-omened, sacrifice must be made of a goat or a bull to avert the threatened evil.

1. If one dreams of hunting, one's success or failure at the next hunt will correspond with the dream.

2. If one dreams that A kills B for witchcraft, one must call next day on B and bite a piece of charcoal and spit it on B, and rub soot on B's forehead and scratch him with thorns. Only thus can one avert the consequences of the dream.

3. If one dreams that A's crops are ripening very satisfactorily and that B's "head is bitter"—i.e., that B is jealous—this is a true dream and one must assist in dealing with B, who would otherwise bewitch the crop with the evil eye.

4. If one dreams of a battle and that one survives, though wounded, in the next battle no relation of the dreamer will die, though several may be wounded.

5. To dream that so-and-so is entertaining guests with beer means that he is doing so,—and one immediately goes to participate.

6. To dream of a leopard injuring someone at a hunt indicates that this is going to happen.

7. To dream that A accidentally spears himself is a bad omen, and one must avert it by the same procedure as is given in 2 above. But this must be done immediately on waking or else the precautions will not be efficacious. If necessary,

the dreamer must even take a long journey at night to ensure the prophylactic value of the treatment.

8. To dream that the Turkana (or some other enemy) raid a given locality means that such a raid will take place early in the morning and one must warn the warriors immediately.

9. To dream of falling into the fire is a bad omen, whether the dream is about oneself or about another person. One must sacrifice a white goat to avert the danger and tie a bracelet of the goat-skin on the person of whom one dreams.

10. If one dreams that someone lifts one up to the sky and throws one down, one wakes up terrified, and on one's next journey one must beware of a bad road on which one may fall and break one's neck.

11. To dream of being stabbed means that someone will kill someone else, not the dreamer.

12. To dream of climbing a tree and falling from it has no significance.

13. To dream of falling and knocking out a tooth means that one will have a successful love affair at the next dance. (I was unable to elicit any reason for this interpretation.)

14. To dream of a particular girl, especially if the dream is definitely erotic, signifies that a relative will marry her.

J. H. DRIBERG.

## Obituary.

Myres.

**Edwin Sidney Hartland, July 23, 1848—June 19, 1927.** *By Professor* **95**  
*J. L. Myres, M.A., F.B.A., F.S.A.*

Edwin Sidney Hartland, elder son of a Congregational minister, the late Rev. E. J. Hartland, was born at Islington on 23rd July, 1848. Trained to be a solicitor, he began to practise at Swansea in 1871, and entered on a long career of public service in the following year as Clerk to the Swansea School Board, recently constituted under the Elementary Education Act of 1870. A happy combination of the lawyer's sense of order and principle, with wide human sympathy and a high ideal of citizenship, multiplied his friendships and his opportunities of administrative work, first in South Wales, and afterwards in Gloucester, where he was Registrar of the County Court and District Registrar from 1889 to 1923, Alderman from 1900 to 1911, and Mayor in 1902, when it was once more his fortune to take a significant share in extending and readjusting educational institutions under a new Education Act, as Chairman of the Education Committee for Gloucester, and eventually Chairman of the United School Governors to whose management the older endowed foundations of the city were transferred in 1906. Both at Swansea and at Gloucester he rendered also important services to the Public Library and other institutions for the encouragement of learning, such as the Cymmrodorion Society and the Bristol and Gloucestershire Archaeological Society.

With these local interests and activities, however, his methodical and critical mind combined studies and executive services of more general importance. He was one of the earliest members of the Folklore Society, presided over the Folktale Section of the International Folklore Congress in 1891, and was president of the Society itself in 1899-1901. In 1906 he was President of the Anthropological Section at the British Association's meeting at York, and in 1908 of the Section for "Religions of the Lower Culture" at the International Congress of Religions at Oxford. He was long a member of the Council of the Anthropological Institute, gave the first Frazer Lecture at Oxford in 1922, was invited to give the Institute's Huxley Lecture in 1923, and received its Huxley Medal. He received honorary degrees from the University of Saint Andrew's in 1917 and from the University

of Wales in 1924; and was a Fellow of the Society of Antiquaries of London, Honorary Fellow of the Society of Antiquaries of Ireland, and Honorary Member of the Cymmrodorion and Folklore Societies.

These varied offices and distinctions came to him as one of the most learned and distinguished of British students of antiquity, and especially of popular customs and traditions; universally trusted for his wide knowledge and critical ability, above all for the sanity of his judgment and the broad humanity of his outlook. "Quietly and easily," like the public servant in Hesiod's verses, "he could abate skilfully in a moment even the mightiest contention by the sureness



EDWIN SIDNEY HARTLAND.

"of his speech"; or, as one of his Gloucester colleagues put it, "he had always been one of the calmest of the decided politicians on the Council." Hence the continual demands on his time and goodwill, in scientific as in administrative questions. Yet he found time for much reading, and not a little published work, sometimes popular (in the best sense of the word), as in his admirable "Science of Fairy Tales" (1890) and his presidential addresses; sometimes illustrating large questions of social anthropology with ample apparatus of instances and comparisons, as in "The Legend of Perseus" (1894-95-96) and "Primitive Pater-nity" (1914); or in his edition of Walter Map for the Cymmrodorion Record Series, with translation by Dr. Montague James and notes by Professor J. E. Lloyd. A full bibliography of his writings will shortly be printed in *Folklore*; but even this cannot do justice to his

constant editorial and critical help unflinching rendered to fellow-students old and young, nor to the occasional verses with which he delighted his more intimate friends.

It is less easy to distinguish Hartland's special contributions to the method of Folklore studies, or to estimate the significance of his results. The publication of Frazer's "Totemism" in 1887, and of "The Golden Bough" in 1890 made English readers familiar with the conclusions of foreign scholars such as Mannhardt and Wilcken about the beliefs and practices of peoples in the lower types of culture, and the vestiges of these in popular customs and tales throughout Europe and in the higher civilisations everywhere; and popularised also the notion that such beliefs are available to supplement and explain practices, and such practices

to illustrate beliefs. On similar lines, the founders and early supporters of the Folklore Society, of whom Mr. Clodd and Dr. Gaster are still among us, were already applying similar methods of criticism both to the local "folklore" of Britain (and especially of its Celtic-speaking peoples) and to the rapidly-growing literature of travellers' tales from other regions. These men worked in great measure collaborately, as a school of colleagues; in close touch, moreover, with the comparative ethnology of Tylor and Lubbock, and the comparative technology of Pitt-Rivers, Evans and Franks—to name only distinguished pioneers. It is as instructive therefore to find Hartland's "Science of Fairy Tales" included in 1891 in the first dozen volumes of the "Contemporary Science Series," as to find the "Ethnology in Folklore" of his close friend, Lawrence Gomme, standing fourth in the "Modern Science" essays edited by Lubbock and published in 1892. For, as Gomme wrote in his preface, "if folklore, then, does contain ethnological facts, it is time that they should be disclosed, and that the method of discovering them should be placed before scholars." Further collection of facts seemed to be of little avail, and liable even to misapprehension, without some attempt at classification; and any kind of classification presumed some notion of the meaning and utility of what was being classified.

The sub-title of "The Science of Fairy Tales," "an inquiry into fairy mythology," is itself further explained in the preface as an "application of the principles and methods which guide investigations into popular traditions to a few of the most remarkable stories embodying the Fairy superstitions of the Celtic and Teutonic peoples" (p. 1). Such stories are very numerous, "but they are made up of incidents whose number is comparatively limited"; and it is by analysis of stories into such elements, and separate consideration of these, that the notions which they convey—in this instance, as to the Fairies themselves—can be recognised and traced to their origins in human experience. A standard example of such analysis in detail is the "Celtic Folklore" of Sir John Rhys, published in 1901, ten years after Hartland's essay. What these experiences were depends upon the several histories of the peoples among whom the stories are preserved. The divergences of these stories are obvious; but "hitherto the task attempted by folklore has been to show that underlying all these differences there is a broad foundation of common agreement; that distinctions of race do not extend to mental and moral constitution; that the highest nation on the ladder of culture has climbed from the same rung on which the lowest are yet standing; and that the absurd and incongruous customs and institutions and the equally absurd and incongruous stories and beliefs found imbedded in the civilisation of the more advanced nations are explicable, and explicable only, as relics of the phases wherethrough those nations have passed from the depths of savagery" (p. 351-2). . . . "On the other hand, it is not asserted that the status of savagery was the primitive condition of men. Of course, it may have been. But if not, there is work to be done in endeavouring to ascertain what lies behind it. The questions started from this point wander across the border of folklore into pure psychology; but it is . . . a psychology which must be painfully reconstructed from the simplest and most archaic phenomena disclosed by anthropological research" (p. 352). Here is a statement of method, with illustrations of its use, notable both for its early date and for its recognition of the broad relations between this aspect of ethnology and the border studies of history on one hand and psychology on the other.

Following the examples of Mannhardt's "Wald- und Feld-Kulte" (1875-77) and later of Frazer's "Golden Bough" in illustrating a general principle through intimate study of a particular instance or type of observance, the three volumes of Hartland's "Legend of Perseus" (1894-5-6) expand and supplement the

teaching of the "Science of Fairy Tales." "In these volumes," he wrote (I, p. v.), "I have attempted an examination of the myth upon scientific principles. It is compounded, like other folktales, of incidents which have varied in their order and prominence, as well as in their mode of presentment, at different times and in different lands. What constitutes its importance is the fact that certain of these incidents are grounded upon ideas, universal in their range, and found fully developed in the depths of savagery, which, rising with mankind from plane to plane of civilisation, have at last been embodied in the faith and symbolism of the loftiest and most spiritual of the great religions of the world." The greater part of the book consists of "an inquiry into analogous forms of the Supernatural Birth, alike in tale and custom, throughout the world," and so on with the other "incidents" of the tale. But with this analysis achieved, "I shall return to the story as a whole, and, treating it as an artistic work" in the sense already set forth in the "Science of Fairy Tales" (ch. i), "I shall inquire whether it is possible to ascertain what was its primitive form, where it originated, and how it became diffused over the Eastern continent," and so "exhibit . . . the advantage for psychological purposes of research into the ideas and the usages of uncultured peoples and of the less cultured classes in civilised communities." He might have added "historical" purposes to "psychological," for the connection backwards with the work of Bastian and Tylor is no less evident than the anticipation of much that has been popularly attributed to Rivers, and—to take an even later instance—of the argument of Mr. Hocart's "Kingship" (1927). Especially notable is Hartland's insistence, in the concluding chapter (III, 148 ff.), on "the geographical boundaries within which the story, as a whole, may be found," as indicating "the geographical and ethnical boundaries of that stage of culture which forms the seed-plot of the incidents of most restricted range." How provisional such estimates of distributions must be, he was well aware (p. 149), and how much allowance has to be made for overlap of expansive cultures such as that of "classical" antiquity, of which he has ample illustrations. Other incidents, of subsidiary importance, he finds to have more restricted range, "We are shut up in each case to a fairly defined area within which the detail is found, and within which, therefore, it probably originated" (III, p. 180); and this imposes caution in estimating the value of occasional coincidences beyond these limits. For example, in the incident of the Scented Locks, "we cannot be positive that the incident in the Cambodian story is derived from the Egyptian. We can only say that its form is later in civilisation, and therefore perhaps in time," and he looks rather backward, to expect a version "which may be the common parent of the incident" as related in Egypt and in Cambodia.

But while expending most of his labour on these questions of what latterly has been over-popularised as "diffusion," Hartland clearly apprehended another aspect of them. The science of folklore he valued ("Perseus," III, p. 187) "chiefly for the light it throws on the mental constitution of mankind, and the general genesis of ideas and of institutions," and the significance of this quest, growing as he worked, largely determined the form and content of his later books, "Primitive Paternity" (1910), "Ritual and Belief" (1914), and "Primitive Law"; but is already most clearly expressed in his discussion of the notions of "mana," "orenda," and the like, in his address in the *Proceedings of the British Association* at York (1906). Here the problem is at the same time historical and psychological: What conceptions do men form of the nature of the exceptional man, as a supreme (and to them a *crucial*) instance of initiative in nature; of the relation, that is, between cause and effect? For the answer to this question goes far to determine the form assumed by political society, which necessarily recognises some ground, or sanction, for the "authority" to which it conforms the behaviour of its members.

Written very simply, concisely, judicially, much of Hartland's work attracted less general attention than it deserved. Engaged, till health began to fail, in a busy career of professional and voluntary citizenship, but escaping the academic distractions of those who make a hobby their profession, he made colleagues rather than pupils, and produced less to a time-table than on a system. But those who knew him as what he once described as an "elder statesman," at a Congress or a meeting of "Section H,"—still more, who had the privilege of seeing him at work in his own admirable library, now happily incorporated in the National Library of Wales,—best know what manner of man he was, and what his contributions were to the subjects which he had made his own.

JOHN L. MYRES.

## Africa, South: Linguistics.

Laidler.

### The Place-Names of the Nama Hottentots, gathered in the Richtersveld and Kamiesberg Districts of Little Namaqualand.

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By P. W. Laidler, F.S.A. (Scot.).

The language of the Hottentot is not adapted for use at a distance. One man cannot successfully convey a message in it by means of words at a distance. To-day the *Afrikaanse taal*, or Cape Dutch, is preferred when a message has to be called. Certain early writers denied that the Hottentot possessed a language, and said that they hardly had the power of articulation. Undoubtedly Nama is one of the most difficult languages for a white man to acquire, but there are many who have been brought up among natives from childhood that speak it passably. It is still the language of the Richtersveld population and of many on the Kamiesberg in Little Namaqualand, and of course of the tribes to the north of the Orange River.

Nama possesses a wealth of onomatopoeic words, and of these animal names are of course commonest. The clicks are here represented by four letters of the alphabet: *D* for dental, *P* for palatal, *C* for central, and *L* for lateral, followed in each case by a stroke.

*L/kananaap* is a large green locust, three inches long, with spiky legs. "He" is saying warm, warm, because he calls for it to be warm in the night, and it comes. "He says *L/k-an-an-an*, warm. *Sorae D/ae D/ams*, he says *D/ke-ne-ne-ne*. His "name means sun's warmth. He calls for warmth for the day." The latter is a small black insect slightly larger than a bee. *C/kaouree*, the rain caller; *C/ka* represents the flapping of the wings as it rises in the air; *ouree*, the whistle it makes as it sinks again to the ground. *P/tok P/tok* is the toktokkie beetle, also named after the noise that it makes. *Vouree C/gnom* is the Christmas beetle, so common in Africa. It flies with a buzz, *voureeeee*, and invariably comes to earth with a resounding fall, *C/gnom*.

*P/garoo* is the growling leopard. *Ncee* is a sneeze. *P/kou* is a cough. *P/kouroo* is the rumbling of thunder. *Nabaa* represents the short sharp appearance of the lightning followed by the roll of the thunder. *Naghgou* is the pig (Ludorf). *Choachamma* is the chattering baboon. *P/kabou* is the old flintlock gun. The first syllable represents the fall of the flint upon the pan and the second the ensuing explosion. *P/hachry*, the korhaan. *Quagua*, the partridge. *P/honckakenery*, hens (Wreede). *P/quisee*, doves (Wreede). *Huroo*, the breaking of the seas upon the shore. *Mnoo*, an ox.

The Hottentots were great place-namers. Some of these names are concise descriptions of the locality, others commemorative of incidents that happened on the spot; those of a third type are comparisons. Johannes says that a few were taken over from the Bushmen. Water-places come into a class by themselves; they were all most important to the community, and many of their names are descriptive of the quality of water there to be obtained. The Namas were very

fond of giving nicknames, and are, according to Cornelius, all very interested in the stories that attach to old places and place-names.

*C/ourie D/aies* is white rock, a quartz-topped kopje in the plain near Thirty-six Miles on the Port Nolloth Railway. *Dong D/qua*, burnt . . . , a sandy place near Anenous. *Tsubees*, troublesome fountain, near Anenous, when the river runs it silts up. *D/neis*, from *D/nei*, a lump, a little hill. *D/gena quas*, flea valley.

*Kinderlay*, near Steinkopf, has a Nama name, so far not recovered. About fifty years ago the Hottentots went to the Mission church at Steinkopf. The Bushmen raided their kraal during their absence and murdered all the women and children. On their return, the men found the children's corpses lying around, hence "children lie around."

*P/mauw*, *D/oeip*, Gezelschap Bank, Conversation Hill, to the east of Steinkopf. Mentioned by Alexander as 'ou 'mup. There was a Bush-Nama fight many years ago. The Bushmen thought themselves safe and commenced to talk on top of the hill, when scouting Namas beneath heard them. This possibly refers to a fight during the migratory period, when the Hottentots first appeared in Namaqualand.

*D/kara kois*, foreign woman. A man came from the Cape and in a bushy place found a spring that had never been seen by those living near by. Hence "foreign woman." This is near Steinkopf.

*P/lookiep* is the present O'kiep, and means big brack—a large area of arid salty ground. Pronounced *P/oo kaie eep*.

*P/khoi ams*, man's mouth, a narrow pass with a small spring only "big enough for one man's mouth," near Concordia.

*D/noro P/ghanap*, where the poles on which hide ropes were twisted were erected.

*P/awais*, burnt face, a big blackish stone.

*D/aba*, *D/ouis*, Rooiberg, red mountain near Ghorap.

*D/harac lung ka D/uiip*, many teeth rock. A kopje where the serrated edge stands out against the skyline and looks like teeth.

*P/ani P/nous*, Anenous. *P/ani* is to the side, on entering the hut—that is, in the corner. The name of an old-time stand on the yearly or seasonal migration, where there is a spring in the corner of the kloof.

*P/kuru oms*, White Stone Mouth, near Kookfontein. White stones around a spring.

*P/aieoms*, Dry Mouth, a steep climb to a water place. By the time you get there your mouth is dry.

*Ghei kas*, Wind Kloof. When the wind blows from the sea or inland it blows along this kloof; at other times it is quiet.

*P/aga bees*, Modderfontein, mud spring; a common name.

*P/kammagas*: *P/kamma*, brown; the Komaggas of to-day = brown mud.

*D/obees*, Stinkfontein, Stinking Spring. "It smells when not cleaned out regularly."

*P/tkomtis*, Sorry Spring, I feel sorry. An old Hottentot and his wife drank here; the old man had a velsak (skin bag) on his back. As he lay to drink the weight above overbalanced him and he fell in and could not rise again. His old wife was too feeble to help him, so he was drowned. A very old name.

*C/qubuu P/kams*, Olive Waters. A spring at the top of Springklip. Probably once surrounded by trees.

*P/nares*, *P/ghaap*, Steal Back. The Bushmen stole the beasts from the Namas, and trekked back over the mountains at this place.

*C/kauras*, it tastes bad.

*P/a ams*, Reed Mouth. Reeds around a spring.

*C/kho P/aiop*, take the wrist, the hand in climbing? A steep place.

*C/koobos*, a very dry place. The word means turn around. It is equivalent to the Keeroms, or "Turn arounds" of the Dutch that mark the points reached by the early explorers, where a drought or desert prevented further advance.

*P/kodas*, Soapstone. Pipe stone is found there. There is a place of this name in the Richtersveld and another in the Kamiesberg.

*Kaie moes*, Big Eyes. Near Spectakel, also Keimoes near Upington.

*P/an daos*. *P/an* a sort of bush that grows plentifully in this particular *daos*, or poort or pass.

*C/na bip*, Big Stomach. All the waters come together there in the winter from the surrounding kloofs. Situated to the north of Anenous.

*Danee bees*, Honey Fountain.

*D/heera D/au*, Baboon Blood. A spit kop in a valley beyond Big Stomach, where in the early days the Hottentots killed many baboons. These animals had troubled them for long, and so the natives made preparations and declared a war against them, chased them to this kopje and killed them.

*P/keing L/neis*, Lekkersing (sing nicely). Namas say that many years ago the Bushmen made beer and danced nicely here.

*P/kham daos*, Water Poort. The name seems also to represent urine.

*D/ou D/gams* (?) The Nama name for Brakfontein. There is a tradition that here the Bushmen lived before the Hottentots came to the land. The tradition is correct. There are many caves in the rocks on the one side of the river, the roofs of which are blackened by generations of fires. Some of them are so ancient that they have fallen in. Bushmen relics were recovered from beneath the surface. The Hottentots use them as sheep shelters only.

*D/aie L/oas*, Dead Fire. The Bushmen lived on the top of this long black mountain. The Namas found them and the little men at once put out their fires. All these names in the Richtersveld refer to fights, some of which may go back to the time of the original migration south.

*Goo daos*. To-day corrupted into Good House, on the Orange River. Means cattle pass, in this case a pass and ford combined.

*P/nam tap*, Spring Over. Two high stones on Springklip. One has a water hole, to reach which a man must jump from the one to the other.

*D/nua kams*. *D/nua* is a little thing that wriggles like a fish in water. Mosquito larvæ?

*C/neib*, Naaip, a mountain near Pella. *C/neip*, a giraffe?

*C/kara Xghap*, Kokerboom River. The long kloof that leads to Danebees. To-day there is not the trace of a koker (quiver) tree to be seen.

*D/ung D/ung D/nooboo*. "Look, look, now can see the huts near the river."

*Xghap*, *Xghap*, now known as Kap Kap, a place near Bushmanland, inland from the Kamiesberg. There is a long winding river, that rarely sees even rain, that is crossed repeatedly when travelling eastward. Thus, River-River.

The *Spoeg Rivier* of Namaqualand is not Spook, or Ghost, both of which terms occur on English maps, but Spoeg or Spit, a direct translation of the Nama word meaning to spit. At its source the river "spits" over a little waterfall.

The Sand River, named by Europeans, later became the Buffalo River, its correct name, for in Nama it was Chansip, or Buffalo.

*Ukribip* is scratch claw place, in the Richtersveld. Another similar name is *P/kaoubis* (now Jerusalem), which meant rubbed or scratched out; an elephant's rubbing place. There are many rocks in Namaqualand that show these highly polished corners where the great beasts scratched their sides.

*C/narap*, *C/nara*, to sit and watch, means peacemaking. The "Chief gave up" his rights and retired to this place to sit and watch, or wait and see what would "happen." Possibly a relic of the end of the nineteenth century, when the Govern-

ment began to take ground from natives and grant farms and mission stations to the Europeans.

*D/nauroo D/namies*, reed gathering. "The gathering-place when the Hottentots "came together after being hunted out of the Cape by the Dutch." Possibly a relic of the seventeenth-century Dutch-Hottentot war? It is near Namaroep.

*D/aba khois*, Blood Person, a rock near Komaggas that is like "a beautiful "girl with red cheeks, breasts and all."

*D/oos*, now Oes or Koets (the present village of Kamieskroon), "between the shoulders." Is descriptive of the position, probably of a kraal, between the shoulders of two ranges of hills.

*D/quanais*, clean-washed face, smooth. A bare clean rock that springs vertically from the ground to a height of about thirty feet. Between Garies and Wallenkraal.

*C/hau hoobis*, Blood River. Near Rietkloof. Here the Bush and Nama peoples had a big fight about 140 years ago. There are innumerable graves in the vicinity.

*Hou D/am goos*, Faeces on others. Evidently the correct explanation of the euphemistic Blood River. Other informants say that, after the fight, where the Namas killed many Bushmen with blows on the head from kirries, the dead lay heaped one on top of the other, and that many in their dying had fouled their neighbours.

*L/quu L/nua L/aíses*, Others' fires face to face. Near Bathel. Many people lived there because of the good water, and "those nearing it at night were met face "to face by the many twinkling fires of the kraal, which could be seen like stars, "afar off."

*D/kami bees*, a gathering of springs.

Kamiesberg is *Chamies*, or *D/kamies*, a gathering place. At one time it and Namaroep were the two chief centres of the Namaqua.

*D/keis*, nothing, a bare place. A common name.

Many modern farm names are corruptions of original Nama names; among such are Arreghas, Gams, 'kouberg. Others, again, are direct translations. Among the latter is Soebat(ter)sfontein, or Pleadere's Spring. Here tradition says that several Bushmen captured two Hottentots and proceeded to torture them. The prisoners pleaded for their lives, but the Bushmen were obdurate, broke their limbs, filleted them in the fashion peculiar to them, by two semicircular cuts, base outwards, one on either side of the chest, leaving the breast-bone as a central bridge. The two flaps with ribs were forced round until they met behind. I have exhumed a skeleton fulfilling this description. In the case quoted above these men were left spread-eagled over some rocks. In the latter case, judging from the position of the man's skull, his throat had been cut and the head almost severed from the body. His back had been broken in the region of the lumbar vertebrae. P. W. LAIDLER.

## Egypt: Religion.

Hornblower.

**Further Notes on Phallism in Ancient Egypt.** By G. D. Horn-  
blower.

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1. Since the publication in MAN, XXVI, 52, of the phalli found in the Hat-hor shrine of Deir el Bahri, I have been able to trace other specimens from the same source, making a total of thirty-eight.

A friend of the late Dr. Fouquet, of Cairo, informs me that in his collection of antiquities was a faience phallus bearing the inscription "A good mouth" and that the owner explained it as a medical amulet designed to promote a cure in the orifice of the organ. Dr. Fouquet was a keen collector of specimens of Egyptian antiquity which he considered to show signs of pathological interest and doubtless classed this one among them; the suggestion is ingenious and may be correct.

The inscription was presumably *nfr. r*, which may mean "A good mouth" or merely "good," the *r* being redundant and serving to make clear the last letter of the preceding trilateral sign *nfr*. In this case the signification would be that the object was good as a charm for fertility or venery, which is a possible interpretation also if the reading is "a good mouth."

Though in Egypt phallic amulets seem only to have been current in the later periods, in Mesopotamia they are found in very early times; specimens were found by the joint expedition of the British Museum and the Museum of Pennsylvania University, 1925-6, dating from the 3rd Dynasty of Ur, about 2400 B.C. One of them consisted of testicles only; they were pierced for suspension.

2. With regard to the figure of a woman and ass *in coitu*, I am much indebted to Dr. Alan H. Gardiner for the following note:—"In curses against trespassers, 'Dynasties XX-XXV, the phrase 'May an ass copulate with (*nk*) him, may an ass 'copulate with his wife' is fairly common, see 'Recueil de Travaux,' 25, 194, 196, 197, 198. In Berlin ('Ausführliches Verzeichniss,' p. 307, no. 7984) there is a faïence 'figure of a donkey 'outraging a woman.' It may, therefore, be supposed that such 'figures are connected with a familiar form of curse and perhaps served to enforce 'that curse.'"

It is most interesting to find, from Mr. Hocart's letter to MAN, 1927, 92, that exactly the same strange form of curse occurred, later, in India, and received there the honour of open representation on stone, beside such venerated objects as the Sun and Moon; in Egypt it never took, apparently, such an exalted position.

3. The notion of unnatural vice seems to have been connected in the ancient Egyptian mind with enemies. In the oldest literature, the *Pyramid Texts*, a collection of spells for the benefit of the dead king (Dynasties V-VI), we find the following in "Utterance" 372 (652a):—"Go forth, plant thyself on him (the 'enemy) that he may not copulate (*nhp*) with thee"; in the Kahun Papyri Set threatens to treat his dire enemy Horus as a woman, and it may be that the word *hmti*, meaning "woman-like," which is an insulting term applied to enemies (see Erman and Grapow's *Handwörterbuch*), refers, at least inferentially, to the indignity in question.

In modern Egypt some trace of this old notion survives in a custom suppressed by the Government some thirty years ago. At the Mulid el Far, an annual festival in Cairo held on the birthday of the Sheikh of that name, round his mosque, a public representation was given on a cart of the act of pæderasty. I have not myself seen it, but heard of it from trustworthy sources in 1895; when, however, the following year, I visited the mulid, the practice had been suppressed in consequence of a letter of protest sent by the Ulema of the Azhar University to the Ministry of the Interior (no. 10, 10th Shaaban, 1312 A.H., i.e., in February, 1895). The Ulema requested the suppression of "the unorthodox doings hereafter enumerated", in the interests of religion and morality, and the "laying down of penalties for such practices according "to the precepts of the Religious Law." Then follows a list of these evil doings, beginning with "The procession of Sheikh el Far, because it contains the worst "possible abominations." Now if, as the Ulema believed, the common people could see in this practice a matter of religion, it must have been connected with some deeply embedded notion, now quite irrational, but really founded on the treatment of defeated enemies, and it is possible to infer that in the oldest times, among the ceremonies to celebrate a victory was the treating of the enemies "as a woman"—probably only in simulation.

Nor need we be incredulous, for the "Pyramid Texts" contain a famous passage\* indicating the eating of enemies, the relic of an age of savagery not yet forgotten

\* See the interesting article by R. O. Faulkner in the *Journal of Egyptian Archaeology*, Vol. X, pp. 192, ff.

and probably not very distant. Of this barbarity, too, traces have survived in public instinct, of which instances are given in a note below.

The victory over enemies is also represented, this time in a rational manner, at the great mulid of Sayid Ahmed el Bedawi at Tanta. Here the living representative of the Sheikh, swathed heavily in fantastic clothes and fanned and perfumed liberally by privileged followers, heads a procession of which the first part is composed of men dressed in a hotch-potch of pieces of old armour, who represent defeated enemies, supposedly Crusaders. These men were formerly subject to ill-treatment by the mob of onlookers.

At the Mulid el Far a leather phallus was probably used, strapped on the performer, such as have been used quite recently—and perhaps still are—in country circuses in Egypt, where the clown, thus equipped, pursues, amidst uproarious laughter, various members of the ring. At the great mulids I have seen old men carry about large leather phalli, merrily whirling them about, especially over the women, creating great rustic mirth. Here we have a clear

echo of the pranks played at festivals as recorded by Herodotus, II, 60, and a probable explanation of them. Village rivalries are always common in Egypt\* and the indecent gestures were a pantomime display of hostility, not necessarily always real, but indulged in as a vent for the high spirits natural to the occasion.

4. An interesting modern example of a magical phallic group is shown in Fig. 1, after a



FIG. 1.—PHALLIC GROUP, KHARGEH OASIS

photograph taken in the Great Oasis (Khargeh) in 1911. No information was gathered at the time, except that the two figures, one male and the other female, were erected to procure prosperity for the crops; they are composed mostly of clay, with some large stones. The organs of reproduction are emphatically indicated and the group belongs to the well-known class of phallic charms for fertility (see Hastings' *Encyclopædia of Religion and Ethics*, Art. "Phallism," by E. S. Hartland, vol. 9, pp. 815, ff.). That the figures face each other in

\* See, for example, R. Curzon's *Visits to Monasteries in the Levant*, ch. XI (pp. 127-8, of the 4th edition), for murderous attacks between Tahta and Sohag, in Upper Egypt; also the note at the end of this article. Everyone coming into contact with modern country life in Egypt knows how tenacious and violent these village feuds can be; even women will help in the fights, bringing up stones, with shrill cries of encouragement to the men. In their unreasonable fierceness they seem to have their roots in those very ancient days when Egypt was a land of independent districts, each ready to battle for its share—or more—of land and, perhaps more especially, of irrigation water. It is remarkable how many "Utterances" in the *Pyramid Texts* refer to "the enemy."

exactly the same way as those of Bes and naked women, mentioned in my previous article, is interesting and denotes, perhaps, some community of inspiration; but the Bes figures can hardly be supposed to have been made for purposes of crop-fertility.

No other group of this kind has come to my notice in Egypt, but it is a very common practice to furnish scare-crows with large sticks for phalli, sometimes completed with a pair of stones, tied on by string at the appropriate spot. On enquiring of an old *fellah* of the reason for this equipment, I was told that without it the birds could not know that the figure was a man; but one cannot help suspecting that behind this kind of scare-crow lurks an old Egyptian Priapus.

5. The ancient Egyptian name for a bull, *ka*, was followed by the determinative of a phallus, and here we may find a trace of the means by which the generative powers of this organ were first discovered by man, namely, the domestication of cattle, when it was observed that no calves could be produced without the preliminary action of the bull—a discovery of the greatest moment, leading to a revolution in the notions concerning woman as the source of life. A sugar figure of a bull covering a cow used to be a favourite form of sweetmeat on the stalls at mulids; it does not seem to have appeared on them for several years now.

#### *Note on the Survival of Cannibalistic Instinct.*

The suggestion with regard to ceremonial pæderasty is fortified by a parallel survival of the old instinct for cannibalism.

A common expression of street fighters is "Let me drink his blood," a foolish phrase in modern conditions, but corresponding indeed to a living, if latent, inner impulse. Juvenal, in *Satire XV*, on "Superstition," records (ll. 35-92) a terrible example: a man of Coptos (Qift), engaged with his fellow-villagers in a savage fight with the men of Tentyra (Dendera), slips when fleeing from the victorious foes, who immediately cut him into small pieces, so that each may have his share, and he is completely devoured, raw. The last-comer, who found no flesh left, tore up the ground with his fingers, so as at least to absorb some drops of the enemy's blood, in order doubtless—though probably he knew not this reason—to acquire his virtues.

Again, it is on record that in the riots of 1919 the blood of a murdered man was deliberately drunk in a village of Upper Egypt. This is, of course, a very rare instance of excessive excitement, due to inflamed mob-instinct, but it shows that the old impulse towards enemy-eating still survives, however deeply hidden.

G. D. HORNBLOWER.

#### ABSTRACTS.

Archæology. Nordman; Young.

*The Origin of the Kitchen-Midden Civilisation.* By C. A. Nordman, 98 from "Historical and Literary Studies of the Swedish Literary Society of Finland." 3, pp. 253-264. English abstract by Miss Jean I. Young.

The herald of the New Stone Age in large areas of West and North Europe is the Kitchen-Midden civilisation, with its characteristic triangular or trapezoid flake-axe and its rounded core-axe.

This civilisation derives its name from the remains of dwelling-places consisting largely of oyster-shell heaps, bones of fish, birds and mammals, implements of stone, horn and bone, and fragments of pottery

with, occasionally, the blackened stones of a fire-place, or a human skeleton lying face upwards in a stone ring, found in large numbers on the coasts of Denmark. They are found at varying levels along the coast-line accompanying the Littorina Sea's maximum height, and belong to that period of a warm, damp climate when the oak had supplanted the Ancylyrus fir, deer the elk and urox, and the sea swarmed with oysters and other shell-fish. The Kitchen-Midden folk lived much as their forefathers; agriculture was unknown to them and the dog their one domestic animal; they were hunters and fishers. Several types of the previous age are missing in finds from this period and new ones have

taken their place. Flint has become the preferred medium, and the technique in the working of this material has undergone a transformation. Dwarf-flints—with the exception of numbers of tiny arrow-heads—and the exquisitely fine flaking have disappeared and instead of these we have countless specimens of a comparatively rough flint-technique: flakes, cones, nodes and the flake and core-axes themselves are illustrative of the change.

The so-called "slagstock" (a kind of pick), a horn tool formerly very rare, is now ubiquitous; bone combs appear, too, and pottery, in the shape of large, pointed drinking-cups and low boat-shaped bowls, is a distinctive novelty.

The geographical distribution of this culture is as follows. In Scandinavia it is confined to the S. and W., with Denmark as its promised land; but in S. Sweden there are numbers of dwelling-places without shell-heaps, while in the W. they are found even up to the Norwegian frontier—this would seem due to direct relations with Jutland. Here, however, a "green-stone" axe is substituted for the Kitchen-Midden flint implement; the Lilhult-axe from Bohuslän and Næstvet-axe from E. Norway are both of compact, close-grained rock ("bergart"). This Lilhult-Næstvet group of finds is in some ways more primitive than the kitchen-midden civilisation; pottery was apparently unknown.

In E. Sweden the Linhamn type (from Skåne), a shorter, flatter kind of axe, is found alongside of the Lilhult type. A few examples of both kinds are found in the Danish Kitchen-Middens, also the rounded axe ("trindyx").

We find implements exactly similar to the Danish in finds from Holstein to Pomerania, the greatest number in Rügen. Some of the N. German dwelling-places lie below the sea-level and possibly the lack of Kitchen-Midden finds from the south North Sea coasts is due to the sinking of the land.

Finds of the Kitchen-Midden type are not met with in E. Germany and it is doubtful if the specimens from Lithuania, Poland and E. Russia stand in direct relationship to the N. W. centre. Related types are found in Russia (e.g., the Waldai and Olonetz districts) which have some connection with the oldest Stone-Age finds in Finland and the E. Baltic of the so-called Kunda-culture. The new element was probably introduced to S. W. Finland from Estland, while E. Finland again is connected with the N. W. Russian centre which most likely influenced the development of this stage of civilisation in Estland.

This whole group, commonly designated the Suomusjärvi-culture, and supposed in part to belong to the period of the Littorina Sea maximum level, forms an E. Baltic parallel to the Scandinavian Lilhult, Næstvet, and Linhamn groups; but it is impossible to demonstrate any direct connexion across the Baltic.

In S. Holland the Kitchen-Midden flint flake and core-axes are neighbours to the Belgian types. This district is closely connected, geographically and socially, with N.E. France's Campignian civilisation, with its mill-stones, ornamented pottery and domestic animals.

England possesses dwelling-places with shell-heaps, but they are of varying age and the Kitchen-Middens' flint-axes are rare, while Ireland boasts of the Larne finds in Co. Antrim.

Recent finds in N. Spain have revealed the existence of dwelling-places which, although somewhat older, may be compared with the N.-European. The Asturian finds in Cantabria, with shell-heaps and rough-hewn flints of the same technique as the Kitchen-Midden types, are post-Azilian and contemporary with the later Tardenoisian finds. Finally, worked flints of obvious Kitchen-Midden type are found in Italy and, strangely enough, in the full Neolithic period.

How are we to determine the relation of these Kitchen-Midden groups to the other phenomena of the European Stone Age? The usual explanation is that they are mutually contemporary and form a distinct stage between the Azilio-Tardenoisian period and the Neolithic Age proper, and the lack of finds in S. Germany and the Danube lands is ascribed to climatic conditions—the spreading of primitive forests over Central Europe. This explanation is not entirely satisfactory. The Kitchen-Midden civilisation is essentially coastal and does not appear everywhere in as primitive a form as in Denmark; in Campigny and Italy we find agriculture, domestic animals and ornamentation of pottery. It is possible to assume that it originated in the North and spread South and that the Southern finds represent later emanations from a Northern centre with additions from a more highly developed civilisation; but the best explanation comes of itself: the Kitchen-Midden culture is not common-European but poor, primitive and of the outskirts, and contemporary with Central Europe's Neolithic stages of culture from which impulses radiate out to the circumference. Thus we may only speak of a Kitchen-Midden PERIOD in connection with certain definite districts. It has been pointed out that in several features its finds differ from those of the

previous age, but the manner of life was essentially the same. We can demonstrate a certain continuity of tools, etc.; and there was possibly some continuity of race, too, although the new elements are probably due to the grafting of fresh folk on to the old stock. Microliths and dwarf-flints disappear, the technique of the Kitchen-Midden period is macrolithic and large, rough-hewn axes become the rule. The Austrian archaeologist Bayer, who regards this period as a distinct pre-Neolithic stage, traces the N. and N.W. European flint-industry back to Syria—Askalon's Palæolithic technique being still dominant at that time. Another explanation is to be preferred. The existence of innumerable large axes and fragments of pottery in the Kitchen-Midden finds is due to influence from the Neolithic civilisation.

The Kitchen-Midden civilisation belongs to districts rich in flint (N.W. Europe and Italy), and its axes are flint. Neolithic axes are of hard rock and polished. When the Kitchen-Midden people, under the influence of Neolithic civilisation, began to make large axes they did not polish these, partly because a sharp edge is obtainable by mere striking of flint, partly because it

is a difficult stone to polish; but examples of polished "green-stone" axes are found from the time before the Littorina Sea's maximum level and polished stones have been obtained from Belgian Tardenoisian finds.

The flake-axes of the same shape from Denmark, Ireland, France and Italy seem to be genetically related. In the case of the problem of W. European and Lithuanian-Russian finds, however, where axes of the same type appear in both areas, but no connexion is demonstrable, the explanation is that both groups are products of a technical necessity.

Thus the Campignian-Kitchen-Midden civilisation is built upon an older W. and N. European heritage, influenced more or less by the higher Neolithic stage. The finds from this period are distinct from, and should not be classed with, those from the pre-Neolithic time as Mesolithic. The Kitchen-Midden civilisation is proto-Neolithic, contemporary with Neolithic in more advanced countries; and, where Kitchen-Midden types appear in these latter, they represent a primitive stage of Neolithic civilisation.

JEAN I. YOUNG.

## REVIEWS.

### Melanesia: Linguistics.

*A Comparative Study of the Melanesian Islands Languages.* By Sidney Herbert Ray, M.A., F.R.A.I. Cambridge University Press, 1926. Pp. xv and 598. Price 30s. net.

The study to which Mr. Sidney Herbert Ray has devoted forty years of scientific work is perhaps the most arduous and ungrateful task of Anthropology. The mastery of native languages in practice or in theory is an accomplishment in which but few students in the field or at home are proficient. Very few, therefore, are capable of understanding by personal familiarity how important linguistics are in all problems of human culture. The life-work of the great Oceanic linguist, though it commands universal recognition, has failed to attract that direct interest of the specialist which waxes into genuine enthusiasm and then diffuses into the facile but pleasant renown among the outer ring of amateurs. And yet Mr. Ray's achievement deserves the greatest consideration, not only on the part of the specialist in language, but also of the Anthropologist in general.

Sidney Herbert Ray has been the pioneer in Melanesian and Oceanic linguistics, and he still remains the world's leading specialist in this field. His astounding ability in

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marshalling the details of language, his untiring industry, and that moral quality of endurance in research which distinguishes the real scholar from the dilettante have allowed him to overcome considerable difficulties in his life's work and to bring a big enterprise to a successful conclusion in this volume. Mr. Ray became interested in Melanesian languages in 1887, and during the following decade he made important contributions to the subject—contributions which defined the general character of Melanesian as opposed to Polynesian languages; established the existence of an earlier stratum of aboriginal tongues which Mr. Ray designated by the term Papuan. In all this he gave us a preliminary classification of Oceanic culture and races, and laid the foundations of subsequent work in race distinction and history, notably that of Haddon, Seligman and Rivers. In 1898 Mr. Ray was able to acquire a first-hand knowledge of native languages in New Guinea and to show more clearly than had hitherto been possible the separation between Melanesian and Papuan tongues, an achievement in which he was given corroborative evidence by Pater W. Schmidt. Volume III of the Report of the Anthropological Expedition to the Torres Straits, published in 1907, embodied the results of Mr. Ray's field-

work, and it still remains the standard work on Oceanic linguistics.

The present volume is based principally on Bible translations by local resident missionaries, obtained from the Melanesian Islands. This material is made scientifically satisfactory by the many corrections and additions which Mr. Ray was able to make through the patient correspondence in which he collected native tales, lists of words, drafts of grammar, and idiomatic expressions.

Thus in course of years and decades a vast material was accumulated, of which this volume contains a considerable portion. Mr. Ray limits himself to the islands of Melanesia, from Buka in the North-Western Solomons—for which district he has at his disposal material from such first-rate scientific observers as Professor Richard Thurnwald and Dr. G. C. Wheeler—to the Loyalty Islands, embracing thus in his study the long chain of archipelagoes which unite New Guinea with New Caledonia. These two large islands, as well as the Bismarck archipelago, the Admiralty Islands and Fiji, are excluded from the survey.

The grammars and vocabularies which form the second part of the book are the *pièce de résistance* and, to the linguist, the most interesting and valuable part of the work. To cavil at small details, inconsistencies and contradictions would be as useless as to attempt a summary of a material which a specialist must study for himself and the amateur could not possibly understand in a brief excerpt. But this seems the right occasion to denounce the anomalous state of affairs in which the average anthropologist still regards himself as an amateur in linguistic study, and thus excused from taking a serious interest in a work such as the present.

Language is an important—perhaps the most important—aspect of culture, and in no discussion of comparative anthropology can it be justifiably omitted. Nowadays more especially, when problems of diffusion, history and the mixture of cultures are so prominent, the need of a thorough survey of linguistics ought to have been patent to every anthropologist. We are constantly discussing whether a cultural product, which we find in a similar form in two distant areas, has been brought from one to the other, or whether it has independently evolved in either. The proof usually depends upon whether the form is determined by the purpose and use of the product, by the material from which it is made, by the want which it satisfies. In other words we have to ask always whether the similarity in form is due to identity in function, or whether it is so accidental

that it could not have originated on parallel lines independently. As an extreme example of such accidental similarity of form we can take the famous bow found with identical, yet uncorrelated, details in Melanesia, West Africa and other disconnected areas. Here it is difficult to account for the similarity except by the simple hypothesis that the object was invented in one place and brought thence bodily to the several areas, where it remained handed on by tradition. On the other hand the use of fire, the use of the stone blades or sticks, the collecting of edible roots, the institutions of marriage and the family, are all so determined by the nature of the material in which they are shaped—whether this be inanimate or human nature—and by the functions which they fulfil, that we find no difficulty in assuming independent and parallel development.

In fact, all the serious diffusionists, such as Ratzel, Boas, Graebner, Kroeber and Schmidt, always insist upon the axiom that the first condition for any diffusionist hypothesis must be the impossibility to explain the given configuration of details by the nature of the object. Wherever form is determined by function—that is, wherever we can apply the principle of “limited possibilities”—the diffusionist must make way for the comparative student of human nature and for the psychologist.

Now, there is one aspect of culture where the principle of “limited possibilities” has no application whatever; where form is entirely independent of function, and where similarities in form indicate unambiguously historical affiliation. This aspect of human culture is language, and in no other domain has reconstructive history of prehistoric times achieved such triumphs as in the comparative linguistics of Indo-European and, to a lesser extent, of Semitic languages. It is remarkable that the historical school in Anthropology has to a certain extent fought shy of language, with the exception, that is, of the eminent German scholar *Pat. W. Schmidt* and of his school.

The brief but pithy conclusion of Mr. Ray's volume has unquestionably more value for the history of Melanesian cultures than most of the clever and inspired, but largely poetical, speculations with which Anthropology has been flooded of late. Mr. Ray clearly establishes within what limits Indonesian migrations have influenced the islands of the Western Pacific, and also the probable character of such settlements. He shows that the great variation in the extent to which the Melanesian islanders have changed Indonesian words indicates

that these words were introduced by colonists who effected a settlement on the smaller islands, imposing part of their speech upon the natives. This mixed speech influenced the native languages with which it came in contact, these latter adopting some of the Indonesian modified speech, but changing it according to their own style of pronunciation.

An interesting linguistic generalisation established by Mr. Ray is that Indonesian words found in Melanesia have the characteristics of a pidgin-tongue. They can, according to the author, be, therefore, no longer referred, except in rare cases, to any one original Indonesian tongue, and are on a par with the modern pidgin of the Pacific.

The material as well as the conclusions of Mr. Ray are of the highest scientific value, and his work, which ought to be in the hands of every Anthropologist, should be another inducement for a more intensive interest in linguistics on the part of the student of man, and at the same time for a study of language more thoroughly correlated with investigations on other aspects of human culture.

B. MALINOWSKI.

Transport.

des Noettes.

*La Force motrice animale à travers les Âges.* By Commandant Lefebvre des Noëttes. Paris: Berger-Levrault. 1924. Pp. viii + 138. 80 plates. No price.

The author of this interesting book has a thesis which he propounds with conviction and supports with photographic reproductions of originals. He asserts that there has been no searching inquiry into ancient methods of harnessing draught animals, and that "l'histoire du cheval et du bœuf de trait n'est pas mieux connue qu'il s'agissait d'animaux vivants dans une autre planète"; and, further, that "la force de l'animal de trait ne fut captée qu'au X<sup>e</sup> siècle sous les premiers Capétiens." The book is an attempt to justify these impeachments of the ancients and the moderns, by proving that in all the ancient civilizations (that of China excepted) and down to mediæval times, horses were harnessed for draught in such a way that the pull was taken by the front of the neck, and that for this reason "le rendement du cheval de trait dépendait plutôt de sa résistance à l'étranglement que de son poids et de la vigueur de ses muscles." The ancients persisted in this blunder, and the moderns have hitherto seen it with their blind eye. Whether we go all the way with the author or not, the high position of the (flexible)

collar of the draught horse is clearly shown in most representations of ancient date, and we cannot doubt that this was a serious handicap to the full development of the available horse power. Most of the illustrations depict horses that are attached to chariots or other vehicles of high social standing, and although there are some which show a similar collar on horses used for more lowly purposes, the proof is not complete that more efficient, if less fashionable, forms of harness were not sometimes employed for heavy work; but negative evidence may be good evidence, and the author is entitled to his deductions. Space will not permit of a discussion of the many interesting points which arise out of the facts and arguments adduced, not only as to the horse but also the ox and the ass, but it is difficult to be as sure as the author appears to be that the use of the strangulating harness led to such a neglect of the horse for hauling purposes that forced labour and slavery were almost logical consequences. A simple explanation of complex social phenomena must always be suspect, and various factors might be suggested as partial causes of the preference for human labour. The author makes out a good case, however, and in so far as the harness is concerned, there is no difficulty in conceiving the possibility of an arrest of development at a point where, in the case of the "sorte de collier de chien," a stage of fair efficiency had been reached, though the device was so specialised as to be incapable of improvement. We may suggest that the modern methods, which spare the organs of the neck, were not evolved from those condemned by the author, but from some less stereotyped system, also of ancient origin, which allowed of modification in the right direction. However that may be, even the practical Romans failed to invent an efficient harness, and apparently the essential steps were not stumbled upon until about a thousand years ago. As the three main features in the modern utilisation of horses as draught animals, the author puts forward the collar, the nailed-on iron shoe, and the disposition of two or more horses in file. He rejects decisively the claims of those who have labelled so many horseshoes as Roman or prehistoric.

The author has a sound distrust of the personal equation, and refuses to rely upon, or to supply, copies of originals in pencil or paint; but the effort to trace details in some of his smaller photographic reproductions of indistinct originals convinces the reader that interpretations have their value.

H. S. HARRISON.

## Psychology.

Spearman.

*The Abilities of Man, their Nature and Measurement.* By C. Spearman. **101**  
London: Macmillan. 1927. Pp. 415 + xxxiii. Price 16s. net.

As the result of twenty years of intensive experimental study of ability by means of tests, Professor Spearman has produced this book. It lays new foundations for psychology and contains a quite surprising wealth of detailed exact information on the nature of human ability, the independent elements of which it is composed, the relation of these elements to each other, to the sense organs, to age, sex, race, etc. While primarily concerned with "intelligence tests," this work builds a solid superstructure based on experiment and mathematical analysis which will go far to supply the need of biologists for an analysis of the mind such as can serve in a study of mental inheritance.

In his first seventy pages Professor Spearman clears away the foundations by comparison of various doctrines of ability. He shows that "intelligence" as a measure of ability has no definite meaning at all, and that the doctrine of faculties, such as memory, imagination and attention, is unsatisfactory, as are also those of types (introvert, synthetic, etc.) and of a general level or sum of many abilities, correlated or independent.

Then follows an exposition of the mathematical method of tetrad differences which is used throughout and which indicates the universal presence of a general ability factor ( $g$ ) and a very large number of specific factors ( $s$ ). The proof (in Chapter X) that  $g$  and  $s$  exist is accompanied by such an abundance of data as should convince the most sceptical. But while  $g$  is fixed for the individual it varies widely from one person to another. "For the purpose of indicating the amount of  $g$  possessed by a person, any test will do just as well as any other, provided only that its correlation with  $g$  is equally high." It is concluded that every mind possesses a fixed potential of mental energy and that, owing to the variations of the many  $s$ 's every normal person is a genius at something as well as an idiot at something.

We cannot enter here into the analysis of special abilities and "group factors," but power and speed of response are found to depend upon  $g$ . Power of attention also has its relation to  $g$ , and laws of fatigue and inertia are formulated and the nature of oscillations in efficiency discussed. In a short chapter on Heredity and Sex the author considers whether ability is "inbred rather than acquired" and in how far  $g$  and  $s$  are involved. The conclusion is

drawn that individual differences in ability are much greater than racial differences, though the inheritance of differences in ability is admitted. Here is an open field for much further work, some of which might well take the form of comparisons of  $g$  and  $s$  in successive generations of the same family. By this means the particular inheritance of different mental elements can be determined.

Professor Spearman is to be congratulated on having brought into one focus a vast mass of experimental results, much of it produced by his own school, giving an analysis of ability. The next step would appear to be the application of these methods to a study of the inheritance of mental differences. R. RUGGLES GATES.

## Czechoslovakia: Archæology. Menghin.

*Einführung in die Urgeschichte Böhmens und Mährens.* By Oswald Menghin. Anstalt für Sudetendeutsche Heimatforschung Sudetendeutscher Verlag Franz Kraus, Reichenberg, 1926. Pp. 118. **102**

All archæologists will be indebted to Professor Menghin for this illuminating survey of the results of prehistoric research in Czechoslovakia. Few countries possess such a rich and well-studied record of their remote past. But owing to linguistic difficulties the conclusions to be drawn from the careful investigations carried out by Bohemian and Moravian archæologists remain a closed book to most people. Menghin's monograph gives a preliminary survey to guide us through this maze.

We might at the same time express the wish that a little less space had been devoted to the demolition of the pretensions of Pič and others, who are here accused of using prehistory for political ends, and that a little more attention had been paid instead to the brilliant studies of Stocky and his colleagues. Perhaps Menghin's book will induce these to state their views more fully in one of the three "international" languages of science.

V. G. C.

## Britain: Archæology.

Åberg.

*The Anglo-Saxons in England during the Early Centuries after the Invasion.* By Nils Åberg. Cambridge (Heffer), Haag, Leipzig and Uppsala. 1926. Pp. 220 + x. 1 map and 319 text figures. Price 12s. 6d. net. **103**

In this volume Dr. Åberg sets out to describe the grave goods discovered in pagan graveyards of the Saxon period in England, though he is content to deal with brooches and buckles, besides a few other decorated metal objects. Implements and weapons, pottery and glass are left on one

side, and beads are only casually mentioned. It has been the author's object to place in their chronological order the various types of ornamented objects, using for the most part a typological method, checked by synchronisms, and finally for dates by the objects found with seventh-century coins at Wieuwerd in Friesland. He does not discuss the origin of the decoration, though he treats it throughout as purely Teutonic. H. P.

Rhodesia, Southern.

Taylor.

*Nada No. 4.* Edited by Guy A. Taylor. Salisbury (S. Rhodesia). Southern Rhodesia Native Department. Pp. 132. 2s. 6d. **104**

This publication sheds great credit on the Native Department of Southern Rhodesia and even the most cantankerous critic could find no other fault with it than its too rare appearance. The archaeologist, the historian and the anthropologist will find in it an astonishing amount of valuable information and there can be little doubt that its study will be of the greatest practical use to legislators of the colony in their labours when dealing with native affairs. All the matter contained in it has the advantage of having been obtained by men on the spot who are well acquainted with, and sympathetic towards, the people they write about; we owe a deep debt of gratitude to the hard-worked Native Commissioners for giving their scanty spare time to the investigation of native customs, beliefs, folklore, etc., and generously putting the results of their observations at the disposal of their collaborators, successors and all those interested in the life of the African.

A word must be said in praise of the printers who, in a place which less than half a century ago was an unknown wilderness, have prepared a periodical which in every sense can rival the best European productions. E.T.

America, North: Folklore.

Grinnell.

*By Cheyenne Campfires.* By George Bird Grinnell. New Haven: Yale University Press. London: Humphrey Milford, Oxford University Press. 1926. pp. 305. Price 18s. **105**

Mr. Grinnell has given us a collection of Cheyenne stories, told merely for their own sake. The author is an osteologist and naturalist, with much experience in treating with the Indians on official commissions and on his unofficial visits. He seems to be imbued with a very sincere attachment to his red companions and it is his aim, one gathers, to help the White man to understand the Indian.

There is no attempt at any interpretation of the tales, sociological, psychological or in any other way. He merely tells his stories. In his introduction, he says that their chief function was that of entertainment, with perhaps a secondary one of training the memory of the young. Later he throws out a hint that the stories might give us "concrete examples of their ways of thought." There appears to be no idea of any closer and more intimate connection with the life of the tribe.

The stories are grouped under the following headings: War Stories, Stories of Mystery, Hero Myths, The Earliest Stories (Creation Stories), Culture Hero Stories, and Wihio Stories (stories of a trickster). There is no attempt at any finer points of classification. Although one section is called Hero Myths, we find no real distinction made between folk tales, myths and legends. The majority of the stories come under the last category, treating of historical incidents in the adventures of the heroes, frequently giving actual dates and names.

In most of the stories, particularly in those under the heading of Mystery, the close relationship of man and the animals is stressed, intermarriage between the two being frequent. Another common motive running through many is the hero, generally young and without prestige, who performs great services for his tribe by bringing them buffalo for food.

The stories are well and simply told. They read interestingly and hold one's attention. The author serves up no theories about them. What he has to say by way of background for the Cheyennes is said in six pages of Introduction.

Yet, as the stories are accurately and sympathetically given, the collection should make a good source book for one who might wish to fit them into their sociological background, particularly since many tribal customs are given in detail. Mr. Grinnell has not written a scientific treatise on Cheyenne Mythology. Nor has that been his aim. He has done well what he has set out to do—told interestingly some Indian tales—and because Indian life is mirrored in these stories, we are left with a vivid picture of the Cheyenne Indians.

HORTENSE POWDERMAKER.

Technology.

Radcliffe.

*Fishing from the Earliest Times.* By William Radcliffe. 2nd ed. London: John Murray, 1926. Pp. 494. **106**

The appearance of a second edition of this work after just five years is sufficient testimony to its merits. It is, indeed, a most scholarly production, packed with curious lore derived from reading both wide and profound. Ethnologists and

archæologists will find many stimulating ideas once they have mastered the highly technical language.

In discussing the origin of the fishing line the author has, curiously enough, missed the very period which was critical. The epipalæolithic folk of the Baltic were above all else fishermen and possessed fish-hooks probably even before the Egyptians.

V. G. C.

*A Short History of Marriage.* By Edward Westernmark, Ph.D., LL.D. (Aberdeen). London: Macmillan & Co. 1926. Pp. xii + 326. Price 10s. 6d. net.

To anthropologists Professor Westernmark's "Short History of Marriage" needs no commendation. There could be no question that it should supersede the larger work even if, treating marriage purely as a social institution, it did not omit certain topics discussed in the fifth edition upon which it is based. The smaller work is an obvious convenience, either for those who are entering upon the study of the subject, or for those who, without desiring to become specialists in this branch of anthropological science, yet desire some acquaintance with current theories.

E. N. F.

## CORRESPONDENCE.

Africa, West.

Talbot.

**The Peoples of Southern Nigeria.**

*To the Editor of MAN.*

SIR,—May I have a little space to deal with a few points in the review of the above book which appeared in *MAN*, 74, June, 1927?

First: I have not, in this, "classified" scientifically the information we possess about the natives . . . and supplemented it." The reviewer apparently did not notice the statement in the foreword to the second volume that "The whole of the information, except for some details about the Yoruba, has been obtained personally" by me. A large proportion of the facts given are here published for the first time.

Secondly, with regard to the criticism as to the number of comparisons: in the same foreword it is said: "Few comparisons are made save with mediæval and ancient Mediterranean races, in order to show the cultural relationship between these and the West Africans of to-day." I have not been in the habit of making comparisons, but the work in question deals with all the peoples of Southern Nigeria, and was written mainly for these. Under the circumstances it seemed advisable to point out similarities of customs which would otherwise be quite unknown to the vast majority of the people principally concerned. That a great Greek philosopher such as Empedocles claimed rain-making powers would, for instance, in my opinion be of considerable interest to the Nigerian of to-day. The number of quotations from the classics, etc., is small, except in a few chapters, and their insertion is, I hope, justified by the considerations mentioned above.

The orthography recommended by the reviewer is inaccurate and has only the weight of a few decades at most in favour of it. As regards the use of the word "juju," the difficulty is what to use in its stead. The associations connected

with the word "fetish" make this undesirable, even if there were no other objections; while "godling" is, to my mind, ugly. "Juju" is a well-known word, is fairly old and possesses a signification not far from the desired content.

Lastly, I am accused of having "been carried away by spiritualistic sympathies" and to have substituted speculation for "research" on the question of the Chi or Over-Soul—chiefly, apparently, because Mr. N. W. Thomas, who studied a part of the people in question, does not appear to have held the same views on this point. I must, however, confess that the particular sentence quoted about "the spark of Divinity" may appear somewhat far-fetched; and also plead guilty to a typist's, or printer's, error in the mention of the Central "American" bull worship, which should have read "Aurignacian."

Yours faithfully,

P. AMAURY TALBOT.

Britain: Archæology.

Clay.

**Excavation of the Five Knolls, Dunstable.**

*To the Editor of MAN.*

SIR,—Mr. Daryll Forde in his letter (*MAN*, 1927, 77) states: "Positions of finds are recorded from the observer's point of view and the urn did lie 'to the left side of the head.' I am sorry Mr. Hemp finds it too paradoxical that this is at the same time near the right shoulder of the skeleton."

Perhaps Mr. Daryll Forde will inform us whether an observer when he observes is supposed to stand at the feet, at the head, or at the side of a skeleton, and if it is permitted to look at a skeleton over one's shoulder.

Seemingly it is as necessary for an archæologist as for a golfer to have a correct stance.

Yours faithfully,

R. C. C. CLAY.





FIG. 1.



FIG. 2.

TUKKAM.

## ORIGINAL ARTICLES.

With Plate I-J.

Ceylon: Religion.

Hocart.

**Tukkam.** By A. M. Hocart, M.A. With Plate I-J.

110

Amongst the many different types of religious festivals current in these parts, the most gruesome is Tukkam or Hook-swinging. It is connected with Bhagavaty temples and is supposed to be the most propitiatory. It is generally a temple function, though instances are not rare of the same being celebrated as a votive offering.

The man to be hooked undergoes *bhajanam*, devout service, in the temple for a period of seven, twelve, twenty-one or forty-one days, as the case may be. During the period of preparation his charges for boarding and lodging are met from the temple funds. On the day on which the festival comes off, he spends his time till the appointed hour entirely in the temple. Then he is queerly dressed in the



FIG. 1.

ceremonial dress, with the head gear, and is supplied with sword and shield. When everything is ready, he rushes out, accompanied by a crowd of people, with at least a few carrying sword and shield, to the rendezvous, where is kept in readiness a crane-like machine. He takes his position on the crane (see Pl. I-J, fig. 1); the hook-end is lowered and his assistant passes the hooks through his skin, pulled out at the back. Then a hen is killed and its blood allowed to trickle down at his feet. After this is done, a third man, generally a professional man having definite experience in the work, pulls down the other end of the crossbeam and the victim finds himself raised aloft hanging in the air. Then a number of people shoulder the crane and they run out in procession with it (see Pl. I-J, fig. 2). In front of the procession the few armed people put up a sham fight, the victim hanging by the hooks also

fighting with the air in that tortuous position. It is not at all a pleasant sight. If wonderful are the ways of God, cruel, indeed, are the ways of pleasing him.

The procession goes on at a quick pace,—the more the speed, the more the shake and the more the pain and the risk—and thrice circumambulates the sacred idol, which is taken out and temporarily lodged in an outhouse. Each time the victim comes in front of the shrine he puts on a reverential attitude and bows to the Goddess, the high priest of the temple standing in front accepting his penitence or worship or both (see fig. 1).

After the last turn is over, the procession, as before, hurries back to the old place; the hook end of the crane is lowered and the victim freed. Then the function comes to an end. As for the victim, a tight bandage is made at the place where the hooks were applied, a few eggs are administered to him, and he is made to take a few quick rounds in the temple. He is then paid his fees and dismissed. Though this tragic festival is annually celebrated in nearly half-a-dozen temples, there has not yet been reported any death or mishap.

The origin of this festival is lost in obscurity. But the elders advance three views to explain its origin: some say it is only the realistic representation of *Kali's* destruction of *Darika*, and in proof thereof is pointed out the fact that this festival is connected only with Bhagavaty shrines. There is, however, no legend, so far as I know, which speaks of *Kali's* hanging *Darika*. Others say it is a process of trial by ordeal, the victim thus proving his innocence; but then, it can only be an individual's affair and not a temple function. Still others say that it is a survival in a mild form of the old cruel rite of human sacrifice and in support thereof is pointed out the practice of killing a hen at the feet of the victim. That is a view that deserves to be seriously considered. But I am inclined to accept it only in qualified form. I would take it primarily as a festival of thanksgiving to one's deity for a victory in battle, in which the sacrifice of the vanquished chief is the dominating factor.

A. M. HOCART.

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NOTE.—Such a view would necessitate the assumption that the Bhagavathi cult was one of the original forms of religion current here and that originally we had priest-kings. The subject shall be taken up for consideration on a future occasion.

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## Obituary.

Seligman.

**Henri Hubert.** By Professor C. G. Seligman, M.D., F.R.S.

The recent death of Henri Hubert in his fifty-fifth year is a severe loss to Anthropology and Prehistory. In this country he will probably be best remembered as the curator of prehistory and ethnology at the Museum of Saint Germain-en-Laye, where he completely reorganised the exhibition galleries (those not yet open being so near completion that they are expected to be available next year). For twenty years he served as secretary the French Commission of Prehistory, while his responsibility for the course in Prehistoric Archaeology and National Antiquities at l'Ecole du Louvre was of even longer duration. He was one of the first of the group of scholars to throw in his lot with the school of Sociology that grew up round Durkheim, his many years of work in connection with *l'Année Sociologique* and his collaboration with Mauss, giving rise to such classics as their joint *Memoirs on Magic and Sacrifice*. 111

Besides his monograph on St. Patrick, Hubert's output of Celtic studies was considerable, and might, if his friends wished it, well form a volume to his memory. It is satisfactory to learn that his collection of photographs and drawings, as well as his lecture notes, will be deposited at Saint-Germain, in the library of the Museum he loved and served so well.

C. G. SELIGMAN.

## Archæology.

Peake; Fleure.

**The Stone Battle-Axe.** By Harold Peake, M.A., F.S.A., and Prof. H. J. Fleure, D.Sc. 112

In a recent review\* we referred to various views concerning the spread of the axe-hammer of stone or copper, and it may not be amiss to endeavour to discuss the matter further as shortly as possible. We take the view that the axe-hammer with a shaft-hole was probably first made in metal, and there seems little doubt that the oldest example published is from Cemetery A at Kish,† which has been dated at 3100-3000 B.C., though far older examples have come recently from Ur.

It is true that from Mesopotamia to any European centre seems a far cry, but we have to remember three things. Firstly, the early Kuban culture, which had relations with Early Cycladic II and therefore belonged to the 3rd millennium B.C., has too many elements of kinship with Mesopotamia to leave any doubt as to a common origin for large elements in the life of both. Secondly, we may note that at some period, possibly later, but still within the 3rd millennium B.C., Sumer had intimate relations with what afterwards became "Cappadocia,"‡ as shown by the finds at Kara Euyuk on the Upper Halys. The connection may well have begun some time before; so, though the mention of the later link is in no sense evidence, its occurrence does help us to face the difficulty of the distance between Mesopotamia and the Kuban. Thirdly, we may remember that Hissarlik II was flourishing at this time.

To the Kuban obviously came persons with elements of a Cycladic§ culture, though whether they came actually from the Cyclades or from some Asiatic port as yet unidentified we cannot say. The connection between the Kuban and Cycladic culture is demonstrated, and one may say that it was possible for men with Cycladic culture to meet, either in the Kuban or somewhere on the lines of communication between that region and Mesopotamia, the battle-axe used in both these areas. It is in this way, we believe, that the battle-axe came into the Cycladic-Minoan cultures during E.M. II; then the double-axe, rather than the axe with a single cutting edge, became dominant in Crete, finally ousting the single-edged axe in Middle Minoan III.

The early metal axe of copper seems to have had the butt bent round so as to form the shaft-hole, and the earliest cast specimens had, therefore, the hole near to one end. When this came to be copied in stone, it seems likely that the axe would have one cutting edge and the shaft-hole towards the butt end, though not so close to the latter as in the case of its metal prototype, lest the stone should crack with a blow.

It is interesting that Mr. Reginald A. Smith, from a study of the axe-hammers found in Britain,|| reaches the conclusion that those with holes near one end are earlier than those with a central perforation. With his general scheme of evolution we feel ourselves in agreement. He, too, believes that the perforated axe in stone is essentially a copy of a metal prototype. As we can even match in metal from Vozdvizhenskaya and Tzarevskaya¶ the elaborate type with the axe bellying out, as it were, around the shaft-hole, and from Maikop¶ the axe-adze with one cutting-edge at rightangles to the other and the hole central, there can surely be little question of the influence of the metal form on the stone one. That

\* MAN, XXVII, 50.

† Mackay, E. "Report on Cemetery A at Kish." Field Museum, *Anthropology Memoirs* I, 1. 1925. Chicago. Pts. 3 and 17.

‡ Sayce, A. H. "Kara Euyuk." *Babylonica*, IV. (1910). Smith, Sidney, "Cuneiform Texts from Cappadocian Tablets," Pt. 1. London (1921).

§ MAN, XXVII, 50.

|| *Archæologia*, LXXV, 77 ff.

¶ Childe, V. Gordon. "The Dawn of European Civilisation." London. 1925. Figs. 62, 65, 61.

the stone battle-axe underwent a great development in Baltic Europe is freely agreed. On the other hand, it should be noted that if Smith's scheme of evolution be accepted, a copper axe from Norway\* serves as a prototype to the series, and this prototype is akin to those from the steppes and from Asia.

It seems to be especially in Middle Minoan times that the axe with the shaft-hole became so important in Cretan culture, whereas the spread of culture westward to Sicily and Malta, awakening, as we hope to show in another paper, South-west and West Europe to megalithic and other developments, seems to be linked up rather with Early Cycladic and Early Minoan civilisations. It is not difficult, therefore, to understand the absence of the axe with a shaft-hole from the Iberian peninsula and the regions dependent upon this culture-province. The crisis that ended the Early Minoan period may well have weakened intercourse with the West, and that region went on with its own life, resuming relations considerably later on new lines with the Eastern Mediterranean.

We think it highly probable that real civilisation in the Baltic area began with influences, presumably from the south-west, bringing megalithic culture, and from the south-east bringing the idea of the battle-axe and the fine flintwork that resulted in the splendid flint daggers of that area. Prior to this, in our view, the Baltic area had only the culture of the shell-mounds, and, as one of us has tried to show, elements of Arctic origin.† It seems increasingly probable that the population included survivors of Upper Palæolithic types, if we may judge from the fact that both Norway‡ and Sweden§ still have in remote corners relatively dark people of hyperdolichocephalic type.

Even the shell-mound cultures need not have originated locally. Menghin|| has drawn attention to broad general resemblances of early pottery, and we gather that core-implements played a much larger part in most Palæolithic cultures than the descriptions usually indicate, however much the flake aspect of the industry was emphasised for a while. It is, however, most dangerous to argue that flint picks and the like represent an independent culture anywhere. The makers of polished stone axes had to begin by rough-chipping, as can be seen from the basalt axes from North Ireland; the finds from Cissbury and other sites labelled Campignian seem to show similarly unfinished implements. For this reason we deprecate the ascription of such sites as Cissbury to an unduly high antiquity, and would suggest that the interesting cultures from Tumba, on the Congo, and from West Africa, that Menghin¶ has recently described, need not have arisen from such an early stage of technical evolution as he seems, in part of his paper, to suggest. These cultures have Palæolithic-looking "coups de poing," some with one side flat and some with both sides convex, with picks as basal elements. As these African cultures develop they show laurel-leaved flints, arrow-heads and even indications of polished stonework; the latter appear to us to be indications of the penetration of the polished stone culture into a difficult area, where development could scarcely be maintained.

HAROLD PEAKE.

H. J. FLEURE.

\* Smith, Reginald A. *Op. cit.* Fig. 7.

† Peake, Harold. "The Finnic Question and some Baltic Problems." *J. R. A. I.*, XLIX, 181-203.

‡ Bryn, H. "Trendelagen's Antropologi." *K. Norske V.S. Skr.* 1917, No. 2, and other papers.

§ See also Fleure, H. J. Pres. Address to Sect. H. Brit. Ass. 1926.

¶ Lundborg and Linders. "The Racial Characters of the Swedish People." 1926. Uppsala? especially p. 48.

|| Hoernes-Menghin. "Urgeschichte der bildenden Kunst in Europa" (1925). Pp. 698-9.

¶ Menghin, O. "Die Tumba-kultur am unteren Kongo und der Westafrikanische Kulturkreis." *Anthropos*, XX. (1925).

## Burma: Technology.

Kenny.

**Chinese Gongs.** *By Major E. C. Kenny, I.A.*

113

In order to avoid a lengthy and probably somewhat inaccurate description of the gongs in question, I would invite a reference to the accompanying figures (Figs. 1-3).

It will be seen at once that the gongs are of two distinct types: in the one the height exceeds the diameter; in the other, the diameter exceeds the height. I will deal with the two in detail, and, as the taller ones are the least interesting, will take them first.

Three years' residence in the country in which they are found brought me to the following conclusions. The taller type are not Chinese at all, though it is probable that the existence of specimens of the other type first inaugurated their manufacture. The taller type are usually called by English people in Burma "Karen War Drums." This, again, is somewhat inaccurate.

The drums or gongs, of both types, are now found in the little frontier state of Karenni, the habitat of the Red Karen people. The latter are a hardy, mountain race and, previous to the British occupation (1894, I think), used to raid into the adjacent Shan territory to the north and north-east. They established little fortified posts, for the purpose of exacting tribute, etc., even as far north as the present Fort Stedman, i.e., a rough hundred miles north of their borders. Similarly they populated the northern foothills of Karenni, the plain surrounding the town of Loikaw, and, while it is certain that a large Shan and Intha population also remained there, it is pretty certain that these must have owned the dominance of the Red Karen.

It is these latter people, Shan-Inthas, who made the taller type of gong of which I am speaking.

There is no literature in the country, so my information rests entirely on local gossip. The latter has it that these gongs were last made by an old Shan who lived at the little village of Ngwe-daung (the Hill of Silver), about six miles south of Loikaw, and that the old man died very shortly after the British occupation, i.e.,

1894. He seems to have been making these gongs up till the time of his death and it is said that the process was a secret one

Now the Shans and Inthas never use these gongs, so I take it that he made them for the Red Karen. The latter use them for crop and other festivals. I have never heard of them being used for war, though I think it likely that they were used periodically for summoning the outlying villagers. This would be quite possible in the Pun Valley, the main habitat of the Red Karen, since the reverberations of the big gongs could be heard for several miles in that mountain country on a still day.

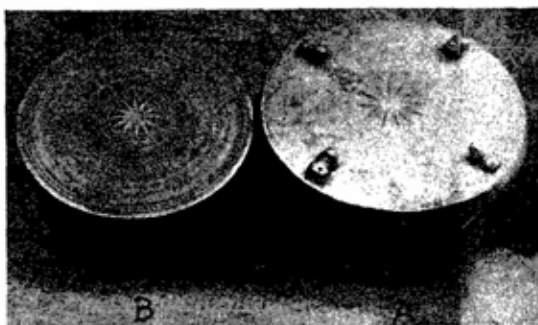


FIG. 1.—CHINESE GONGS.

B.—OLD TYPE—FEMALE,

A.—" "—MALE.

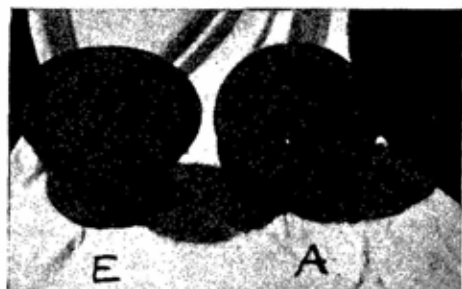


FIG. 2.—CHINESE GONGS.

A.—OLD TYPE (MALE).

E.—NEWER TYPE.

Let me conclude, therefore, by saying that these taller gongs were pretty certainly made by Shans or Inthas for the use of their overlords, the Red Karen, and that the last of them were made quite recently, *i.e.*, about 1894. By a process of elimination we now pass on to a description of the other and flatter kind.

Long before I had ever seen the specimen with its Chinese inscription in the British Museum I had come to the conclusion that these drums were Chinese. I had various reasons for doing this.

They are very rare indeed and unusually difficult to obtain. It is only by the greatest persistence of enquiry that one can learn of the existence of one. This is because each specimen is supposed to be the earthly habitat of some spirit or other, usually malicious: the Red Karen are, of course, animists. They fear greatly to speak of these gongs, to use them in any way or to do anything which might conceivably incur the wrath of the resident spirit. One very ancient specimen in my possession (now in Burma) was resting under a spirit tree for two years before

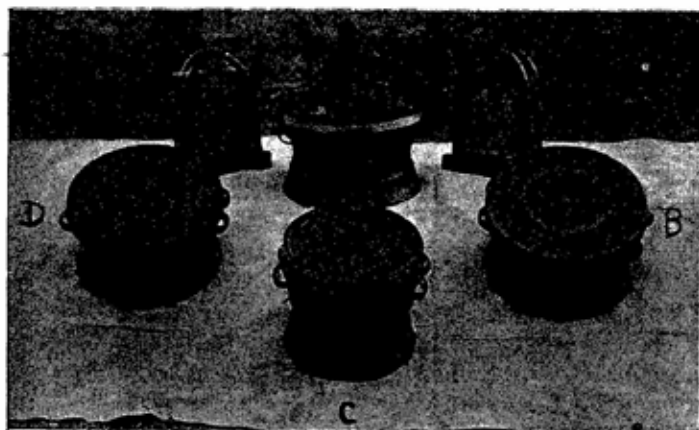


FIG. 3.—CHINESE GONGS.

A.—OLD TYPE—(MALE).

B.— " " —(FEMALE).

D.— " " ( " ).

C.—OLD TYPE—UNUSUAL SHAPE, TALLER AND SMALLER IN DIAMETER. NOTE THE EXTRA RING OR BAND OF METAL ROUND THE BASE. NO SEX ATTRIBUTED TO THIS.

so difficult to buy once one has discovered their existence. They are the mutual property of the whole family. Consequent it is that certain relatives in a widespread Red Karen family will see but little prospect of sharing in the profits of the sale, while they see most clearly a very lively prospect of sharing in the wrath of the particular spirit concerned.

To return to my deduction as to the Chinese origin of the gongs. The Red Karens assert unanimously that these gongs were not made by human agency at all. They say that they were made by "Kyi-dakko"; the Burmese call them "Kyatt" and the Shans "Hpyi-myan." These spirits are said to assume the shapes of beautiful maidens and to sing sweetly in the jungle on the outskirts of villages. When the susceptible young man goes along they assume their proper shapes and tear him to pieces—the old story, in fact. But this, to me, seemed to point to the previous existence of some people in the country other than Red Karen, who had been conquered, and, as was the custom of all conquests in those days, annihilated, but of whom a few individuals had survived for at least a time, fugitive, desperate and vindictive, in the mountains. Since the country has, as I have said,

I could succeed in acquiring it. I obtained it then only by sufficient "propitiation" of the particular spirit concerned, one of the godlings of the chase, by the burying of gold, silver, copper, gunpowder, a bullet, food, tobacco, etc., at the foot of the tree . . . by taking the onus of the actual removal onto myself, and also by the more material "propitiation" of the relations of the whole family! It is really this latter which makes them

no literature at all and since Oriental memory is short-lived, I placed this period, and consequently the age of the gongs, at something in the neighbourhood of four hundred years.

Subsequently I discovered the existence of a very small gong. It is exactly similar in shape to others in my collection, but that is the only likeness. It would seem to be made of some mixture of nickel and silver. It is covered with figures of animals, hieroglyphics, etc., which are obviously Chinese. I have never been able to obtain it, but I still have hopes of doing so.

There is not a very great deal more to be said. It is evident that my estimate of their age was very incorrect as the specimen in the British Museum, which is exactly similar to two of mine, is dated "Made by Chang Fu in the 7 moon of the 4 year of the reign of Chien Hsing (A.D. 226)." But I would point out that this specimen would now be called, by the Red Karen, a female gong. By that I mean that the gongs are frequently found in pairs: a "female," decorated as is the British Museum specimen, and a "male" counterpart, entirely un-decorated, but with four large, well-shaped frogs on the circumference. I have two of each sex; the gong I have spoken of (under the spirit tree) is a "male."

For a hundred miles north of Karenni and in a direct line from north to south flows a river. This is the Nam-pilu or (Burmese) Beloo Chaung—the River of the "Beloo," or spirit. Very shortly after it enters modern Karenni it plunges into a vast cavern in the ground—the country is all limestone. This spot is about a dozen miles south of Loikaw—the modern capital of Karenni—and on the southern side of a densely wooded swamp. The local people will not go near the place. It certainly is dangerous, but they say that it is the residence of all sorts of spirits, which is proved by the fact that the father and mother of all these spirit gongs rests at the bottom of the cavern into which the river plunges and that one can hear the spirits beating the gong on still days.

I once went down to investigate this. The sound of the water falling into the cavern is certainly curiously metallic and pulsating, but entrance into the cavern without extensive preparation and apparatus is out of the question. Half the river flows into the cavern and the other half finds its way by a series of cataracts down a two thousand foot drop into the valley of the Pun Chaung, a big tributary of the Salween, below.

To sum up: It would seem that the taller type of gong might well be called "Red Karen," since they were made by Shans, etc., at the direction of the then dominant Red Karens. The age of any given specimen is difficult to determine. The last ones were made in the nineties of the last century, but certain specimens must be a good deal older than that; more than one fact points to this. For instance, the industry is a dead one. In all my time there I heard of only one man, and his father before him, who had ever been known to make them, and yet there were literally hundreds of this type in the country in about 1913. The industry must have been considerable at one time.

Again, the local people, both Shan and Karen, say that the oldest specimens of this type have a solid, one-piece, eight-pointed star in the centre and only a single frog; no animals on the side (which is really the top when the gong is suspended for striking). This would seem to admit the contention that these were the original copies of the other type, that some of them may therefore approximate in age, and that the ornamentation—superimposed frogs, elephants, quails, etc. at the side—came later. Was the elephant ever indigenous or much used in China? Is not the quail a bird which figures largely in Burmese Buddhism?—and Shans are Buddhists.

*En passant* and regarding the superimposed frogs, the Burmese speakers make a pun on the name of the drums. The usual name is "pa-zee" = "frog drum."

The pun is made by calling them "Pa-see," i.e., "frogs riding" one on top of another.

As regards the flatter type: To me, everything seems to point to their Chinese origin and manufacture; the British Museum specimen with its inscription, the specimen which I have described (which I cannot obtain), the local belief in their supernatural origin stamps them as other than Shan or Red Karen, and, lastly, the capabilities of those two peoples. The Shan is not a clever enough workman; the Red Karen, while a far finer fighting man, is not so clever as that.

As regards their value, it is impossible to be definite, but from the point of view of the collector it must be great. One does not find things which are approximately seventeen hundred years old very often, especially, as in this case, when nobody really knows anything about their ancient history or usages. E. C. KENNY.

### Africa: Games.

Driberg.

#### **The Game of Choro or Pereaüni.** *By J. H. Driberg.*

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In its many forms the game is played almost everywhere in Africa from North to South and East to West: it is played by Bantu, Nilotics, Hamites and Semites alike, and it is a matter for surprise that a game so universally played should have apparently so small a literature. Even in the three variations here recorded it is possible to trace the contacts of different cultures and, were our records more extensive, we could study not only the evolution of the game itself but might even find evidence of contact and diffusion in quarters but little suspected.

From the slight experience which I have of Bantu forms, whether it be the Swahili game or the variation played by the Baganda, I am inclined to the view that the Bantu have evolved a type which depends more on stereotyped openings than do the Nilotic or Hamitic variations; but my knowledge of the Bantu game is too slight to allow of accurate description.

The codes vary considerably even as between tribes of the same family, though large adjacent groups often tend to play under the same set of rules. Sociologically this has a certain importance, as it enables alien guests visiting a neighbouring tribe to establish a footing of intimacy even without the ability to converse. And even granted the absence of any linguistic difficulty—by reason of the similarity of languages or of bilinguality or of the presence of interpreters—the game plays a very prominent part in contributing to intertribal harmony. Strangers may come, and do come, and start playing the game quite naturally and it rapidly puts them *en rapport* with their hosts: it breaks the ice and conduces to an atmosphere of congeniality and friendship: it ensures at least one common bond. This may sound far-fetched and imaginative, but I have more than once seen this phenomenon practically demonstrated. I have watched a party of Dodoth arrive with their donkeys and sheep to trade for grain in a Didinga village. They would arrive in the late afternoon and if they are all strangers, or even if a few are old visitors, there is an air of constraint present, a kind of feeling that the visitors have come for business purposes, which engenders a watchfulness and a self-conscious distrust. People feel on their guard and quite definitely adopt an air of formality, as if to show the strangers that they are well-informed business men, cold, distant and logical. As the afternoon progresses, however, and the shadows begin to lengthen someone extemporises a board and a game starts, visitors and hosts joining in amicably, and at once the constraint and self-consciousness disappear, and after a few games they are all talking together in the greatest amity as though they were friends of many years' standing. The Dodoth will boast of a fine player whom they have at home, a man capable of defeating any other player in the world; and the Didinga, not to be outdone, with the greatest good humour tell their guests to be sure to bring him next time as they also have an unbeatable champion whom they will have ready.

Even more remarkable was the influence of the game when a delegation of Topotha visited me in a Didinga village. Here was not formal distrust but a very intense hostility. For years the two tribes had been at war and both parties had to display the greatest tact to avoid recriminations and almost certain bloodshed. They sat gloomily apart, glaring and scowling at each other, and only the most formal remarks were exchanged, with every now and then a sub-acid reference to an old raid. Once more, however, the game proved a solvent of social mal-adjustments and it was marvellous to see people who a short hour before were ready to spring at each other's throats conversing amicably over a game of *pereaiini*, spears and shields cast aside, sharing their pipes and talking quite freely on every kind of topic, not excluding the dangerous topic of mutual raids.

In another sense also the game has a definite sociological value. It is the one intellectual test possible, and a skilled player has a more than local prestige. It is, moreover, a very real prestige, almost comparable with prowess in hunting, and an outstanding player may even be celebrated in song: he acquires a social status by his skill in the game, and, other things being equal, this intellectual ability may serve to decide the succession to a chieftainship between rival candidates.

A bare description of the rules does not adequately represent the intellectual aspect of the game. It would require a very long series of examples, too long for presentment within a reasonable compass, to demonstrate this aspect. Only by actual play can one learn the finesse of the game,—when one should refrain from taking the opponent's pieces though they are *en prise*, how one should contrive a suitable opening, a trap skilfully disguised, a bait carelessly offered, the sacrifice of immediate gain for a tactical advantage, the steady play for position move after move without apparent profit. And all this, let it be remembered, has to be correlated with complicated mathematical problems considered at high speed, as slowness either of deliberation or of play is considered a sign of ineptitude. A slow player, though a clever player, is not tolerated: he is barracked and adjured to get on with the game: his supporters even play his pieces for him and he is ousted out of the game as a fool and a simpleton. A move may, as we shall see, consist of several circuits of the players' board and at each circuit the number of marbles in their respective holes varies. In considering the various moves possible to him and in assessing their respective merits a player has to look several circuits ahead and has to bear in mind the changes in disposition which his board will constantly undergo. Yet a good player can do this almost instantaneously, and there is little pause for consideration between moves.

Rapidity of play is as essential as rapidity of calculation. This not only indicates mental agility but enables the player to cheat, as it is not possible to cheat when one is playing slowly. A slow player cannot palm a marble or miss a hole without being discovered. The mental attitude towards cheating is interesting. It is not reprobated, but no one likes being discovered. To be discovered carries no penalty and does not disqualify the player, for he is only called to order and has to make his move again. But to be discovered involves a loss of prestige. It is not the act of cheating, but inept cheating which is discreditable, and often one will hear of an exceptionally brilliant player that he is a most accomplished cheat, as he is never found out. A consistent winner is presumed to be an able cheat, and a player may be congratulated on his powers of cheating even when the compliment is undeserved.

A corollary to this permissive cheating is that the player's opponent may never let his attention wander. He must all the time observe the player's hands and keep a constant count of the marbles in each hole in order to check the course of the play. He has no rest between moves but must ever be mentally alert. And out of this has developed the art of persiflage. Players will maintain a running commentary

on the game calculated to distract and to bewilder the opponent: they will casually "think aloud" the plan which they purport to have in mind in order to divert the opponent from their true aim: they will mock at the paucity of their opponent's marbles or boast of his impending disaster: every sort of innuendo and finesse is permitted.

There would appear to be no season of the year to which the game is appropriate. It is primarily a recreation and as such may be played even at a time of private or public disaster. Even during famine or an epidemic, after a defeat in battle or a private loss, the game is played, thus emphasising its function as a diversion, as a relief to the emotions, as a reaction from nervous strain and anxiety. Though naturally it is more often played in the evening, after the toil of the day is over, yet one may see it played whenever occasion permits. Children play it when herding goats: it is played when rain prevents work or during the midday rest. Women very rarely play and then only among themselves, and they play it not with much skill or enjoyment, but apparently in more trivial moods, inconsequentially, in the intervals of gossip. This is what one might expect when one recollects that in the evening, the time best suited for the game, the women are generally busy preparing the evening meal and cannot afford the time which men then have at their disposal.

The game is played for no actual stake, but the Lango hypothecate a cow on the result and the Didinga and the Acholi a girl. Though no stake is paid, a careful check is kept of the games and the players mutually claim and admit a debt of so many cows or girls. The claim having been made, however, and the liability admitted the matter is at an end, but any discrepancy is hotly disputed. It is difficult to see the precise significance of this hypothetical stake, but it is probably connected in some way with the question of prestige and status. It is little use praising a player for his skill to people who were not present at the game unless there is a standard of comparison, whereas if a player is reported to have won, say, nine girls, everyone knows at once that he must be something beyond the ordinary, and if an unknown player is said to have won two cows from an accepted champion his capacity is more readily estimated than if it is just known that he was vaguely victorious. It emphasises the value of the concrete in native psychology.

There is a considerable diversity of nomenclature in different tribes or groups. The game is known as *choro* to the Lango and Acholi, and the Didinga (who learnt the game from the Dodoth) know it as *pereaiuni*, which is the Dodoth and Topotha name—a compendium of *ape*, *are*, *aiuni*, meaning one, two, three. The Didinga variation is played by the Dodoth and Karamojong of the Uganda Protectorate and by the Longarim, Topotha, Lokathan and Lotuko-speaking Lango of the Sudan.

Back row -	(B)	(A)	(P)	(O)	(N)	(M)	(L)	(K)
A {								
Front row -	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)
B {								
Front row -	(j)	(i)	(h)	(g)	(f)	(e)	(d)	(c)
Back row -	(k)	(l)	(m)	(n)	(o)	(p)	(a)	(b)

#### Definitions.

1. The game is played by two principals, but any number may assist on each side. The one in play or about to start a move is called the **PLAYER** and the other his **OPPONENT**. They take alternate moves.

2. A **MOVE** consists in the complete operation, comprising one or more laps, by which the player manipulates the marbles till he comes to rest in an unoccupied hole. When he reaches an unoccupied hole the move is completed and it is his opponent's turn to make a move.

3. A LAP may be of two kinds, simple or incremented. A SIMPLE LAP may constitute a move if it ends in an unoccupied hole, and in the Lango version an incremented lap may also constitute a move. But one move may include many simple and incremented laps.

By a SIMPLE LAP is meant the act of lifting two or more marbles from a hole and dropping them one by one in the succeeding holes, according to the rules of the particular code. If the final marble rests in an unoccupied hole both the lap and the move are completed. If, however, the final marble rests in a hole containing one or more marbles, these are again lifted together with the marble dropped into the hole and the movement is continued as before, constituting a new lap of the same move. In this way there may be a succession of simple laps before the marble finally comes to rest in an unoccupied hole, when the move is completed.

By an INCREMENTED LAP is meant a lap which starts by capturing and confiscating marbles from the opponent's half of the board, in accordance with the rules of the particular code. Only in the Lango version can an incremented lap begin a move. A move may thus consist of a series of simple and incremented laps, and the order of their succession is conditioned by no limiting rules, but purely by the positions occupied by the marbles of the player and his opponent.

4. By INCREMENT is meant the seizure of such of the opponent's marbles as may be *en prise* according to the rules of the particular code. A player has no option in the matter but is obliged to take marbles which are lying *en prise*, and should he by an oversight fail to do so his opponent may insist on a replay of the move.

5. The OPENING consists of the preliminary moves, which are made by the two players simultaneously in order to obtain position. The player who first completes his opening has the first move in the game.

#### *General Principles.*

The game is played on a BOARD\* containing 32 holes, arranged in four parallel rows of eight holes each. The two inner rows are known as FRONT ROWS, the two outer rows as BACK ROWS. Each hole contains two marbles.

The board is divided into two halves, each player having 16 holes for play and 32 marbles. On the chart the holes of player A are indicated by capital letters, those of player B by small letters.

The block of four left-hand holes of each player constitutes a TURNING BASE.

The object of the game is to deprive the opponent of all his marbles or of as many of them as will prevent his moving. In order to make a move at least two marbles must be together in the same hole.

#### *Didinga Variation.*

The marbles are moved counter-clockwise and are dropped one in each hole starting at the hole next to that from which they have been lifted. Thus 10 marbles at hole c, if moved, would be dropped singly in d, e, f, g, h, i, j, k, l, m. Should m be vacant the move then ends. Should m however be occupied by one or more marbles, these, together with the marble dropped in m, continue the movement, starting at n, and the move continues in this way till the last marble in the hand coincides with an empty hole.

If the last marble in the hand drops into a hole in the player's front row which is already occupied, and both the corresponding holes on the opponent's side of the

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\* Among more advanced tribes such as the Swahili or Baganda, who play under different codes, boards of beautiful make and finish are used. But the tribes with whom we are here dealing use either a log roughly shaped or, more commonly, make holes in the ground whenever required. A board chipped on a gneiss outcrop has also been observed. Seeds of wild plants or small pebbles take the place of marbles.

board are also occupied, the marble is left in the hole and the marbles from the opponent's two holes are treated as increment and are captured. With these marbles the player plays an incremented lap, starting again to drop the marbles singly at the hole from which he began the move or, if there have been more than one lap, at the hole from which the last lap started. For example, the player starts at m with 4 marbles, and drops one each at n, o, p, a, but finding 2 marbles at a (which now number 3) he takes them up and drops them at b, c, d, d is occupied by one or more marbles, and at I there are three marbles and at L there are four marbles. These 7 marbles form an increment which the player picks up and with them begins again at b, which was the starting hole of the last lap of the move, and dropping one at each hole ends at h. If h is unoccupied the move now ends; but if it is occupied and E and P are also occupied, he takes up his new increment from E and P and starts again from b. If neither or only E or P is occupied, he continues the move with the marbles which he finds at h, as before.

The player may start his move from any hole which he thinks most advantageous, and it is not incumbent on him to make a move which will result in an increment. Though increments are necessary in order to attain the final object of the game, at certain stages and in certain dispositions a tactical advantage may often be gained by so playing as temporarily to avoid an increment.

The players make their moves alternately till one is rendered immobile, either through having lost all his marbles or through his remaining marbles being disposed singly.

At the beginning of the game the board is arranged with two marbles in each hole, and before the game proper commences the opening has to be played. The preliminary opening is conducted as speedily as possible by both players simultaneously, starting generally at aA or bB. The two marbles are lifted by each from the hole and they proceed as described above, taking the opponent's marbles whenever they are *en prise*, and each continuing until he ends in a vacant hole. Should the players start the opening further to the left than aA, say at pP, it is obvious that, as there are only two marbles in the hole, the first lap of the opening will end while the players are still in the back row. *For the purpose of the opening only and not in the game proper* an opponent's marbles are *en prise* at this stage of play even if the player concludes a lap in the back row. Thus a player starts at l and drops a marble at m, n: if his opponent has not moved his marbles from FO, he may take these (which will of course number 4) and drop them at m, n, o, p: similarly he takes the marbles from HM (if they are still there) and again drops them at m, n, o, p. p must now contain 4 marbles, viz., the original 2 plus 1 from each increment, and taking these up he continues the move by dropping them at a, b, c, d and so on until the move is completed. The opponent's marbles are only *en prise* to the back row at the beginning of the opening: once the player has turned the corner and reached c increments can only be taken from the front row.

Usually players start their opening simultaneously from the same hole and generally from aA or bB; but this is not obligatory and an expert player will often start from another hole unobserved by his opponent in order to secure a different "position" or arrangement of marbles which he can exploit by his superior technique to greater advantage. There is a great deal of finesse in the opening and an expert by observing his opponent, who is playing simultaneously, and by increasing or retarding the speed of his own play may secure a disposition of marbles which will give him a tactical advantage even if he has to concede his opponent the first move in the game.

J. H. DRIBERG.

*To be continued.*

Britain: Archæology.

Lethbridge.

**A Settlement Site of the Beaker Period at Sana Bay, Ardnamurchan, Argyll.** By T. C. Lethbridge, B.A., F.S.A. 115

The sands of Sana Bay, a couple of miles to the north-east of Ardnamurchan Lighthouse, form a conspicuous landmark to vessels rounding the headland. Although the bay is very exposed to westerly winds there are several little creeks, guarded by skerries, which make excellent harbours for the smaller fishing boats. The site is not by any means as desolate as might be expected from its situation on one of the wildest lengths of coast in Scotland. In primitive times the place evidently had its attractions, as is shown by the great stretches of shell midden in the dunes below the present village. In August, 1926, I was able to land here on two occasions and to form some idea as to the date of the middens. There are two main layers of occupation and probably several smaller deposits.

Neither of the big layers is more than a few inches thick and the two are separated by perhaps two feet of sand. They appear to be more or less continuous for several hundred yards. At one spot the sand was blown clear of the top layer and on its surface I found the broken pin of a large bronze penannular brooch, probably of the eighth or ninth century, a link of bronze chain mail, similar to specimens from Ireland, and numerous fragments of coarse pottery like that of the craggans made till recently all over the Hebrides. A portion of a bronze buckle had evidently been derived from this deposit also (Fig. 1, Nos. 2, 3 and 4). Not far away the lower midden was well exposed. It was composed of limpet shells with a very few minute fragments of bone. Flint flakes and those of basalt were not uncommon on the surface of the midden. Sticking out of the top of the stratum were several fragments of "beaker," ornamented,

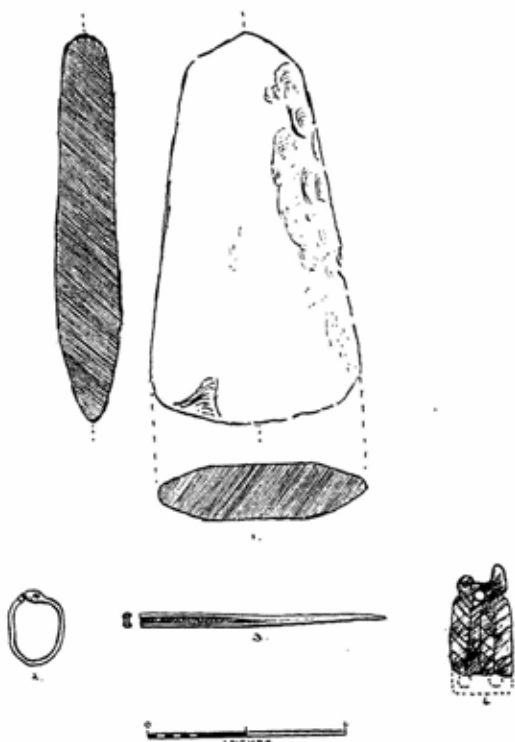


FIG. 1.

apparently from top to bottom, with horizontal rings, formed by the impression of fine cord. These rings are all about  $\frac{3}{8}$  inch apart (Fig. 2, No. 8). The potsherds seem to be from two or more beakers, one of which has been partially restored. There is no doubt as to the period to which these vessels belong, for the type is found with the skeletons of the earliest Bronze Age settlers in England, Scotland and Wales. (As far as I know no other specimens have been found as yet on this west coast.) Less than a yard away and on the surface of the same deposit were several chips of basalt and an unfinished celt made from a beach pebble of this material broken in the process of construction (Fig. 2, No. 9). Also a curious flint knife (Fig. 2, No. 5). Other small fragments of beaker, chips of basalt, and flint flakes lay in the talus weathered out from the midden. A barbed and tanged

arrowhead (Fig. 2, No. 6)\* was also derived from the same layer. There was nothing to suggest that the beakers had been buried with a skeleton in the midden. No

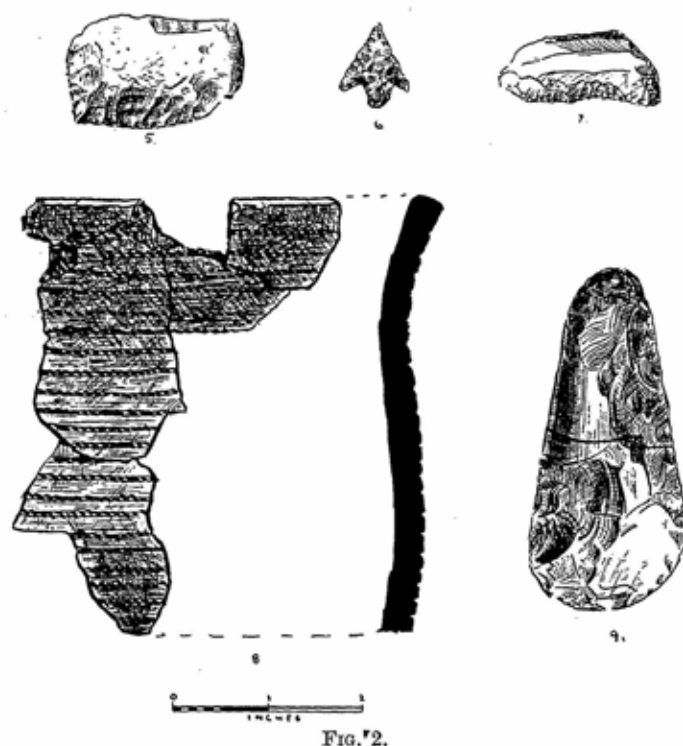


FIG. 2.

human bones lay about and the impression given was that the whole series of relics were part of the litter on the floor of a dwelling place. Not many yards away I picked up a flat, wedge-shaped basalt celt lying on a continuation of the same stratum (Fig. 1, No. 1). The implement shows unmistakably the influence of metal types and is probably contemporary with the pottery.

Two hundred yards away to the west another midden was visible in the side of a dune. A cremation burial of some kind, apparently surrounded

by stones about the size of an orange, had been partially weathered away. Nothing accompanied the burnt bones and ashes which lay in the talus.

It is interesting to speculate as to the date at which the Beaker Culture reached this remote spot.

T. C. LETHBRIDGE.

### Philippines: Burials.

Burdett.

**A Note on the Discovery of Burials in the Volcanic Craters of Camaguin Island off the Coast of northern Luzon, Philippine Islands.** By F. D. Burdett.

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While on a visit to Manila some years ago my friend, Mr. Ferguson, the then Geologist of the Bureau of Science, strongly advised me to visit the sulphur deposits on the volcanic island of Camaguin. Acting on his advice I shortly after left the coast of northern Luzon in a small *vray* and, after several narrow escapes from shipwreck in the dangerous tide rips of the Babuyan Channel, reached the small port of Pio Pinto, which we made our headquarters during our stay on Camaguin. We engaged a guide the next morning to accompany us to the volcano, where the biggest deposits of sulphur were to be found, arriving there at midday, and found that all that Mr. Ferguson had reported to me as regards quality and quantity of the sulphur was correct and even underestimated.

During my inspection of the numerous sulphur vents, I noticed on three big spurs or ridges that ran down into the seething mass of sulphur fumes and steam,

\* The type of arrowhead figured above is not uncommon on the coast. I have three specimens from Gorten Bay, Kentra, a few miles to the north-east, associated with pygmy "Châtelperon points," minute round scrapers, a small leaf-shaped arrowhead, etc. Another was found at Langass Bharp, North Uist (Beveridge, "N. Uist," p. 24) with Bronze Age pottery.

that were pouring out from hundreds of vents in the bed of the volcano, a number of mounds, large and small, that looked very like cairns, as they were all surrounded by a wall of loose boulders, built round the earthen mounds to keep them from being washed away in the great typhoon rainstorms that are prevalent at certain seasons of the year in the Babuyan Channel.

After my work was completed, I opened up a number of these cairns and found they were the graves of a long lost race of people who, for some unexplained reason, had picked out this weird place for a burial ground, where such intense heat prevails that, after the sun's rays entered the crater in the early morning until they were lost in the late afternoon, it was impossible for any living thing to remain there for any length of time, without being overcome by the sulphur fumes and the great heat. We opened the lower line of cairns first of all one rainy morning, and discovered that they concealed two great urns or cists about four feet in height. In the lower one the body was placed and the urn was imbedded in the hot sulphuric rock in the bed of the volcano (Fig. 1). On removing the upper or surface urn, which covered the lower imbedded one, we found the remains had been transformed into a glowing mass of flowers of sulphur of the most beautiful crystalline form, which, alas, powdered in our hands when we attempted to remove them. Everything had in fact been transformed into sulphur, the urn itself apparently being almost pure sulphur, as a piece of it burned readily on putting a lighted match to a fragment.



FIG. 1.

I became so interested that I started some real exploration work and, after opening up numbers of the cairns, not only in the volcano itself, but in other localities, where, when opened, the ground was always found to be quite hot underneath, or recently dead. One of the urns was undoubtedly of Chinese, or Japanese, origin, as it had a dragon drawn on the outside of it; but, with that exception, the urns were of very poor pottery, of native make.

The three ridges running down into the *solfateras* we found contained three different classes of urns. The eastern were all big cairns, and contained big urns evidently for adult men, which we verified later in two instances where the urns were not transformed into glowing sulphur. The western one contained smaller urns, and were evidently those of women, the centre ridge contained only little wee urns, and was evidently the children's cemetery. In several other cemeteries we found small relics and ornaments, apparently of jade, in the form of beads (see Fig. 2). We found, later, bones of exceptionally large size in several outlying places, the skulls very retreating, the jaws prognathous; the humerus bones were

exceptionally long, very like the gorilla's, while the femurs were correspondingly short, and the teeth were perfect, and rounded so much so that the incisors could hardly be recognised; the teeth had the appearance of people who had lived on a purely vegetable and fruit diet.

Some years later I succeeded in getting two sets of urns in perfect condition, with the skeletons in them intact. These I delivered to the Manila Museum in Calle Anloague, Manila, after considerable work and anxiety, not to say great personal

expense. Unfortunately the urns unpacked were left on the lower floor of the Museum where the forestry exhibit was, and the day after I delivered them some labourers dropped a heavy baulk of timber on them, which shattered them and their contents to pieces—this being my first and last attempt to bring in any of these interesting relics for the examination of scientists.

In my exploration work on Camaguin I came across numerous cemeteries in the dead craters, or their vicinity; there being thousands of these cairns in sight, sole evidence of a long lost race who once densely populated this island, and who undoubtedly were



FIG. 2.

all killed in some great volcanic eruption which destroyed every other trace of them with the exception of these cairns. A really systematic search would, I am sure, give some really interesting and valuable data that would well repay the cost of the expedition. There are about four very large independent cairns, which I left alone, in the hope of returning to open them in a systematic manner. They are evidently the burial place of some great chief, or chiefs, who in ages past ruled these people, who would appear long ago to have been destroyed by some great volcanic cataclysm.

F. D. BURDETT.

## REVIEWS.

Palestine :  
Archæology.

Turville-Petre :  
Keith.

*Researches in Galilee*, 1925-26, 117  
by F. Turville-Petre, B.A., with a  
Report on the Galilee Skull by Sir Arthur  
Keith, F.R.S., etc. London, 1927. (Pub-  
lished by the British School of Archæology  
in Jerusalem.) 8vo. Pp. xiv, 120, with  
thirty plates and numerous figures in the  
text. Price £2 2s.

This first memoir of the British School  
of Archæology in Jerusalem records the

exploration of some of the caves of Galilee,  
and describes their contents. The exca-  
vator, Mr. Turville-Petre, deals with the  
numerous implements, which include *coups-  
de-poing*, scrapers, points, flakes, and discs,  
of Mousterian and Aurignacian types; Mrs.  
Charlotte Baynes describes the geological  
features of the caves; and Miss Dorothea  
Bate gives a very detailed and valuable  
account of the animal remains, with a  
bibliography of the quaternary fauna of  
Palestine.

The volume also contains Sir Arthur Keith's report on a human skull found in the Middle Palaeolithic deposit of the Mughareh-el-Zuttiyeh cave. Only the front half of the brain case and the upper part of the face are preserved, but these are enough to establish the Neanderthal character of the skull, though in certain respects there is variation from the European type: the vault, for instance, is higher, and the forehead much less receding. For the full significance of these peculiarities, reference must be made to Sir Arthur Keith's very elaborate discussion, and to the full size photographic plates and measured drawings which illustrate it. As this memoir not only deals with the relationship of the Galilee skull to the other principal examples of Neanderthal man, but also discusses the whole question of the methods employed in estimating and registering cranio-metric data, it will be found indispensable to all students of primitive humanity. And as, fortunately, the inner surface of the Galilee skull is in very good condition, it has been possible to form an unusually good notion of the structure of the brain which it contained, and to throw important new light on the "cisterns" in which the cerebro-spinal fluid is collected, and on the general evolution of the frontal region.

In addition to this valuable and elaborate memoir, the British School at Jerusalem has arranged for the production of a series of casts of the skull itself and its endocranial contents, under the supervision of Sir Arthur Keith. These are published by Messrs. R. F. Damon and Co., 45, Hazelwell Road, London, S.W. 15, and will be found of the greatest value to anthropological museums and laboratories, since the skull itself, which is the property of the Government of Palestine, has been returned to the Museum of Antiquities at Jerusalem.

Typical series of the implements from the Galilee caves have been placed at the disposal of the British School, through the generosity of the Government of Palestine, and are being distributed to the British Museum, in consideration of the grant formerly made to the School by the British Government, and also to those other museums and educational institutions which make substantial contributions to the funds of the British School. J. L. M.

#### Technology.

*Fire as an Agent in Human Culture.* By Walter Hough. U.S. 118  
National Museum, Bulletin 139. Washington: Government Printing Office, 1926.  
Pp. ix + 270. 9½ x 6. Plates. Price 50 cents.

A comprehensive treatment of the subject of fire in all its bearings on human culture is far beyond the possibilities of a volume, and this book may be called a compendium rather than a monograph. It is, however, justified in its title, since the author surveys the whole range of topics connected with fire-making, the methods of using fire for cooking, heating, lighting and other purposes, and the contacts of fire with magic, religion and social customs. Necessarily there are limits of depth, and the methods and inventions of civilised man are not treated in any detail. Dr. Hough's qualifications for a study of this kind are well known, and he has searched the literature of travel and ethnography for references and quotations; for illustrative purposes he has had at his disposal the collections under his charge at the United States National Museum. The result is an assemblage of records and descriptions which will be of permanent value.

Unlike a monograph, which is perfection in *excelsis*, a compendium is always open to criticism, and the present work does not disappoint the reviewer. To put least things first, there are too many misprints, though it is perhaps a little unfair to mention that there are no fewer than six on pp. 188-189. Here and there the construction and a deficiency of punctuation combine to give the reader pause, and there are statements which call for correction or qualification. Of the Australian aborigines it is said (p. 35): "They have 'no knives, and seem to be only in the 'beginning of the Stone Age.'" On p. 67: "Wherever 'dug-outs' were made 'they were hollowed out by fire.'" Reference is made (p. 75) to "the ridiculous 'blast-furnaces of ancient Peru,' in which a circle of men blew through tubes to fan the fire. This is, I think, the only instance in which Dr. Hough seems to express contempt for any human contrivance, and 'ridiculous' is perhaps a misprint. In connection with the psychology of man's behaviour towards fire: "It is instinctive when a bonfire is well under 'way to look around and reassure oneself 'that it cannot spread to other combustible materials' (p. 189); an 'instinct' closely allied to that which shuts the stable door too late. As regards the section on matches, and on the several chemical devices for obtaining fire, the account given would benefit by revision in the light of Mr. Miller Christy's recent treatment of the subjects in his Guide to the Fire-Making Museum at Bow.

Having paid a carping tribute to convention, we may turn to the more debatable subject of the author's attitude towards

the general question of the nature and origin of inventions, and it must be noted that there are times when the implications of his statements are obscure. As we shall see, the fault does not always lie with him, and the need for condensation has probably been responsible for an occasional inadequacy. For example, "Fuel has reacted on the kind of stove necessary to use it; thus invention is influenced in a manner which seems contrary to the common belief as to the cause of inventions" (p. 53). The context does not enunciate this "common belief," but we may perhaps guess it to be a belief that the mind of man is both a preconceiving and a driving factor in all invention, and that small obstacles—such as the fuel being of the wrong kind for the "projected" stove—are brushed aside; so much the worse for the fuel, as it were. If the author disagrees with any such belief, he has my support. But later (p. 191) he says: "All inventions have as a basis the need for surmounting or rendering subservient natural obstacles." I find myself quite unable to detect the significance of this pronouncement, largely owing to ignorance of the meaning attached by the author to the term "invention"—and, for that matter, to the remainder of the nouns in the sentence. Does "invention" here signify a fully-developed artefact, such as a bow-drill or a stone-bladed axe, or does it stand for a mutational step in the evolution of any invention? Is atmospheric pressure an "obstacle" which is rendered subservient in the bellows? In view of such uncertainties there would be nothing gained by arguing here that early man—and most later men—progressed in invention by the insistence of his opportunities rather than by the direct pressure of his needs. On p. 110 we are told that the fire-piston "is of a higher grade of invention than the fire-drill, but not more difficult of conception and execution." We may accept the first of these two assertions, but only on the grounds of our repudiation of the second. The fire-piston is, in fact, of higher grade *because* it was more difficult of conception—"perception" would be a better word—and execution. The use of the word "conception" suggests that the idea of the fire-piston was pre-conceived, whereas Dr. Hough would probably agree that its origin might best be sought in a chance discovery, such as, say, the kindling of a piece of fluff or cotton wool as the result of a sudden blow with a ram or piston down a plugged cylinder in need of clearance. In its relation to fire-making the observation led to an applied discovery—essentially a primary mutation. The fire-

drill is less difficult of execution (if construction is meant) but the manner of its discovery may have been comparable with that of the fire-piston—e.g., observation of the heat developed in the use of a wooden boring-drill.

The possibilities of misunderstanding that I have emphasised, support the contention that there is need for a recognised terminology of invention, and we may now pass to another result of the same deficiency. Dr. Hough makes several references to the "non-inventive" or "un-inventive period," and he says also (p. 244) "the electric light has no long ancestry, but arises on the threshold of the inventive age." Again, speaking of Japan, he says (p. 233): "In no country during the non-inventive period was there such a varied, artistically satisfying utilisation of light." Nowhere does he define the limits of his non-inventive period, in time or space, but we may perhaps infer that it ended (in Europe) not earlier than the eighteenth century. His inventive period which followed was characterised, we may assume, by what I have called directional invention. It is, however, inadvisable to speak without qualification of an "inventive period," nor can we safely regard directional invention as being entirely confined to late stages of material progress. Incidentally it may be noted that Dr. Hough contradicts his own term by recognising the numerous inventions that were made before the beginning of his inventive period, and he thus further emphasises the need for closer definitions. His inventive period is what may be called a phase of intensive (directional) invention, and it is a period in a restricted sense only. But in any case no line can be drawn to mark a time when invention, in any culture, passed into a directional phase. It must be remembered, moreover, that even when directional invention is recognisably at work, the unexpected and the unsought-for play an important part. It may be that there was little or no conscious research or experiment until the founding of large towns and the accumulation of wealth and power led to a keener desire for power and a greed for acquisition and display. Directional invention depends upon the purposeful testing of the behaviour of materials and objects under controlled conditions, and it has discoveries or devices of particular kinds especially in view. Non-directional invention, on the other hand, whilst depending partly upon frequency of repetition of operations, advances through observations made on natural materials and objects, or on the incidental behaviour of artefacts in course of construction or in use. If, therefore, and for

example, in any uncivilised community, a large part of the population has been, over a long period, hunting the same kinds of animals for food, with the same kinds of materials, few in number, for the constituents of their weapons, and if the hunting has been done under conditions that call for great skill and keenness of observation, then these weapons will have been tested so often by so many individuals, and subjected to such scrutiny during manufacture and during use, that useful variations and suggestions for mutations will have occurred much more frequently than in cases where life is easier, food more varied and less elusive, and weapons not the only mainstay of life; the more men there are who make and handle the weapons, also, the more likely these are to benefit by the powers of observation and the ingenuity of the exceptional individual. For these reasons (amongst others) I cannot agree with Dr. Hough in his acceptance (p. 189) of the view that "the Eskimo are the most inventive of the 'races of man.'" Much as we may admire their weapons and other artefacts, we must recognise that it is probably due as much to canalised opportunism as to any special genius for invention. In fact, in their struggle for existence the Eskimo have performed innumerable unpremeditated experiments with their weapons, and they have had the mental alertness to profit by some at least of the suggestions thrust upon them; but we may doubt whether any of their inventions were truly directional in their development—whether any of the mutational steps that were made owed their origin to ideas of possible improvement along preconceived lines. It may be that the progress of the early grain-growers was due to similar opportunism, based on the frequent repetition of operations with a limited number of appliances.

Dr. Hough's view that the European fire-pistons were "amateurish approximations" to the Eastern forms, may be accepted at its face value, without endorsing it, since it is a sign of diffusionist grace—of more, indeed, than I can boast myself, since I do not regard convergence of this kind as having any bearing on the "independent invention" controversy. Dr. Hough being an American, however, there is a temptation to hope for the best, even with the fear that his charity may fail him on the threshold of the New World. There are other passages in the book which suggest that he may not be transatlantically orthodox. For example, he says (p. 107), in speaking of the occurrence of the fire-plough beyond the range of migrations of the Polynesians: "in the

present state of our knowledge a great deal as to origin must be left without explanation and with only the suggestion of independent invention, which should be advanced as a last resource." One could scarcely ask for more. Independent invention as a last resource—a slender reed in the last ditch; and if it bends under the weight of the unassuming fire-plough, how can it bear the burden of the agriculture, ceramics, metallurgy, architecture and other weighty achievements of the Amerind? It seems almost justifiable to claim Dr. Hough as one of the small band of American iconoclasts who do not regard the sanctuary as inviolable. Not yet, however, can we expect to see "Ex Occidente lux" over the doorway of the temple, or over the portals of American museums, but in the meantime it would have been a gratifying motto for this very useful and interesting book.

H. S. HARRISON.

Africa: Linguistics.

Westermann.

*Die Westlichen Sudansprachen und ihre Beziehungen zum Bantu.* Von Dietrich Westermann. Beiheft zu den *Mitt. Sem. Or. Sprachen*, XXIX. **119**

If the term family of languages means the body of speech forms descended from a previously existing unity and subsequently differentiated, it is, perhaps, open to question whether we should continue to speak of the Sudanic family; for Professor Westermann does not in this volume profess to prove the descent even of the western half of the languages known as Sudanic from a previously undivided unity; the aim of the work is to show the presence in them of a common stock of phonetic, morphological, etymological and grammatical material. As a secondary aim the author has sought to establish the peculiarities of the six main groups.

So far as phonetics and word roots go, it is easy to see how far Prof. Westermann has achieved his aim; it may be said at once that he has achieved success not, indeed, complete, for he is well aware that much remains to be cleared up, but such a measure of success as establishes the study of these tongues on a vastly more secure basis than heretofore.

As to the grammatical features, it is by no means easy to see exactly what has been accomplished because not only is there no summing up of the common features but also, as will be shown below, some elements of importance receive no notice.

As regards morphology, there are tables of noun affixes in rather more than twenty languages, but, as will be shown below, Group II will not stand; apart from the

Volta and Togoland groups, the only tabulated languages that have well-developed noun classes are three of the Coast group and Nki, of which very little is known. It is unfortunate that the tables do not show at a glance how the affixes are paired.

The fundamental question raised by this book is really this: what is to be regarded as the pure Sudanic type? The author assumes that it is seen in the Kwa languages—i.e., Twi, Ewe, Yoruba, Ibo, etc.—but there is no discussion of this important question. If the original type had no noun-classes, how did the classes come into existence and how is the distribution of classifying languages to be explained? They are located on the coast of Portuguese Guinea, in the mountains of Togoland, and on the Bauchi plateau. This looks more like an ancient stock than a recent immigration; the material culture of the Kwa group cannot be overlooked in the discussion. Another element in the problem is the period at which the important phonetic changes took place; they seem to be extremely recent. Why? Have these changes proceeded independently in the different groups? If not, where did they begin? These are, of course, only a few of the relevant questions.

The work is, in a sense, a second edition of *Die Sudansprachen*, published in 1910, but it has been so transformed as to be in reality a new work. Each book contains a list of some four hundred stems, but for one reason or another three-fourths of the earlier ones are dropped and of those that remain some are in a different form, while for others none of the old examples are cited. This means that the author's standard is now vastly higher, as is manifest also from the first portion of the book which deals, amongst other matters, with the phonetic changes within the various groups. It is, however, a matter for discussion how far it is legitimate to cite any one of twenty or thirty dialects of a language indiscriminately as is done with Edo and Ibo.

Instead of dealing with eight languages—five Western, three Eastern—the field is now limited in the main to the area west of the Niger; for some stems sixty examples are cited and the list of languages and dialects numbers some two hundred and fifty, arranged in six groups with smaller units for most of the groups—e.g., seven for the Kwa group, which here includes the Kru stock. It is a little surprising to find Ewe and Twi forming a unit to the exclusion of Yoruba, which is, however, so far as the list of stems can be taken as a guide, more nearly related to Ewe than is Twi.

As to the constitution of these groups, there is already general agreement about five; but the sixth, termed Benue-Cross (*sic*), given partly on Sir H. H. Johnston's authority, cannot stand, as will be apparent when its composition is analysed. It contains (a) a number of Bantu languages, some of which, like Ekoi, are so designated in the list of tribes, while others, like Nde, remain unlabelled, though synonyms are noted as Bantu; (b) a certain number of Semi-Bantu languages proper, which Professor Westermann prefers to call "classifying"; (c) a number of Cross R. languages, with affinities with Mbarike, which may or may not come under the head of Semi-Bantu; (d) three Benue-Chad languages, Pika, Karekare and Bode; (e) Jukun, at present isolated; (f) Igabg, a member of the Edo stock of Group I; and (g) Efik, admittedly not a classifying language.

Professor Westermann speaks of the Bantu and Sudanic families; it is therefore difficult to see how his Benue-Cross River group can possibly contain any Bantu languages, and it is quite open to question whether Efik, which is taken as the type language and has its phonology and grammar set forth as such, is really entitled to form a member of it at all; not only so, but the group is very inadequately represented in the list of stems by 165 words or sets of words, of which 73 are taken from Efik only, 33 from Efik and other tongues, 35 from one language other than Efik, and 24 from more than one.

Provided the term "classifying language" is clearly defined, there can be no objection to its use; but Professor Westermann assumes (Table 7) that the vowel *anlaut* of the Kwa languages (which may be a trace of an earlier class system, or derived from contact with such a system) cannot have originated in any other way. The table is otherwise misleading, for in it *u*, *o*, *g* are cited as indicating living beings, and Ibo is mentioned as one of the languages in which this holds good; in point of fact *g* is the ordinary prefix for the verbal noun and under *u* there are five times as many words denoting non-living things as denoting living beings; no one would gather this from the table. Again, *ki-* and *ti-* are cited as occurring in the Edo stock; in point of fact, I recorded something like them only at Otua, which has *g-* and *r-*; the author says that the former occurs "vereinzelt" in my dictionary and that Koelle gives many examples for Oloma; but Oloma is Otua, and I give about the same number of cases as Koelle; *g* occurs also in Akunakuna; as the Otua words include not only plants, tools and parts of the body but also animals (10 out

of 32 words) the table treats data in somewhat arbitrary fashion.

It appears, therefore, that Professor Westermann is not altogether happy in his use of the term "classifying"; in any case it is surprising to find him arguing that the term "Semi-Bantu" should be rejected, which he does on two grounds: firstly, that its use is not justified by a comparison of word roots; secondly, that though the class affixes of the classifying languages are nearly allied to those of Bantu, these same affixes are present to some extent in the Kwa languages, which must therefore be Semi-Bantu also. This argument disregards two points of great importance; it is part of the definition of Semi-Bantu that it is part of the Sudanic languages, and one of the characteristics of Semi-Bantu is that it uses pronouns and adjective prefixes corresponding to the noun affix. Of course, not all Semi-Bantu groups have preserved the class pronoun, but it is impossible to arrive at a satisfactory grouping if this fundamental feature of the grammar is disregarded. Singularly enough, Professor Westermann does not think it worth mentioning in his review of the grammar or in his tables, though one of his main objects is to set forth the characteristic features of each group.

The second main object of the work is to discover what is common to the whole of West Sudanic as defined above. It may be said at once that, though it is possible to suggest additions, as is only natural, to the examples under each root, we have here a great mass of thoroughly reliable material; one can only regret that the statistical side is almost wholly neglected. True, the numbers showing the correspondences of Group I seem to imply that much depends upon the fulness or otherwise of the available material; but even then it is interesting to learn that, taking the examples under the stems as a guide, the Ewe-Twi stock is related to the rest of Group I as follows: out of 398 roots Ewe-Twi is represented in 341; these have 148 correspondences in Yoruba, 122 in Nupe and Ibo, 98 in Kru, 87 in Edo and 76 in the Lagoons languages. If we take Ewe alone there are 225 roots represented as against 165 for Yoruba with 113 correspondences, while Twi, Guang, etc., without Ewe have 116 examples with only 36 correspondences with Yoruba.

The relationship of Sudanic and Bantu does not bulk very largely, but the index shows that more than one-fourth of the stems occur also in Bantu; over 80 per cent. of Sudanic stems are monosyllabic, C + V or C + V + V, while Bantu has at

the outside 50 per cent. of the corresponding roots in the same form.

No brief review can possibly do justice to the learning and the labour that have gone to make up this volume. To say that it will long be indispensable to the student of African languages would perhaps be hardly true, for it cannot fail to bring in such a mass of new material that a new edition will be needed at no distant date. When it appears the author will doubtless be able to incorporate in one volume the present data and the preliminary studies which are appearing in the main volumes of the *Mitteilungen*. N. W. T.

#### Sociology.

Briffault.

*The Mothers: a Study of the Origins of Sentiments and Institutions.* By Robert Briffault. 3 vols. London: George Allan & Unwin, Ltd. Pp. xix, 781; xx, 789; xv, 841. Price, 25s. net each.

It is a pity that the time, energy and erudition devoted to this stupendous publication should have been employed in the thankless task of resuscitating outworn hypotheses, formulated by Bachofen, Morgan and McLennan (to mention no others), accorded a limited adherence by Rivers and Hartland (to whom by the way only one reference is made in the Index), and demolished by Crawley, Professor Westermarck and Dr. Malinowski. A bibliography of nearly 200 pages testifies to the extent and diversity of Mr. Briffault's learning, and let it be said at once that the material here collected will prove of the greatest service to the discriminating reader, though we could have wished that Mr. Briffault had been more critical in the selection of his "authorities." What is permanent and valuable is so encumbered by the ephemeral and second-rate that the average reader will find the bibliography too overpowering for practical purposes. Even Mr. Briffault has felt the burden of this difficulty and time and time again we have found him relying on inaccurate and misleading evidence or omitting to make use of evidence which has presumably been mislaid in this forest of authorities. But if the bibliography is undigested and bewildering, the reader cannot complain of the literary qualities of a book whose style is logical, expressive and pungent and can carry the formidable weight of massed erudition with a grace which is both attractive and persuasive, without that tendency to indulge in purple passages which marred "The Making of Humanity."

Mr. Briffault's thesis is that "all social groups are primarily reproductive groups" and that all forms of the social instinct "are derived from the maternal instinct." All sentiments and institutions are, in his

view, "traceable to the operations of "instincts which are related to the "functions of the female and not to those "of the male." In short he upholds what used to be called the Matriarchal Theory, but his definition of matriarchy (a meaningless term which might well be allowed to die a natural death) deserves to be quoted: "It may be legitimately used in a relative "sense and in opposition to the term "patriarchal," when referring to a state "of society in which the interests and "sentiments which are directly connected "with the instincts of women play a more "important part than is the rule in the "civilised societies with which we are "more familiar."

Despite this very guarded and conservative definition, there is nothing half-hearted in the development of his thesis. All is grist to the matriarchal mill, and all the old hypotheses once more spring to life at his magic touch. It is nevertheless impossible to do more than sum up very briefly the main lines of Mr. Briffault's argument:—Primordial man was promiscuous and lived in maternal hordes; exogamy was a device to maintain and to reinforce matriarchy; marriage for the same reason was matrilineal; it was also collective; economic development brought property; matrilineality was the basis of marriage by service; the possession of property led to the substitution of dowry for service in marriage; as a result patrilineal supplanted matrilineal marriage; the group, horde or clan broke down and disintegrated into families (the family, that is, is derived from the larger group); patriarchal societies developed. This is a fair summary of Mr. Briffault's thesis, and if we are asked what Mr. Briffault means by group and family respectively, and how it is that the group precedes the family in evolution, we can only say that Mr. Briffault is not quite clear on the subject himself, but, so far as we understand him, it is this: By group he means an aggregation of no-paternity entities under feminine dominance, a group in which the man's function is that of a mechanical procreator; whereas by family he implies an unit involving the recognition of the man's sociological position. What the father's place is in the primitive group is not elucidated.

Mr. Briffault adopts the biological approach in attacking his subject, but, unless the general laws of evolution are to be jettisoned, we cannot agree that the unicellularity of protozoa, bacteria and algae is any argument for the hypothesis of a completely matriarchal horde, any more than we can concur that the cannibalistic tendencies of certain reptiles prove the sexual instinct in man to be primarily

sadistic, cruel and voracious and unconnected with the mating instinct. Zoologists would disagree also with many of the statements which he quotes in support of matriarchal conditions in the animal world, and, speaking generally, we are once more forced to the conclusion that the biological postulate is too dangerous and double-edged a weapon for sociological polemics.

The emphasis here laid on the reproductive aspect of the primitive group is, in view of recent tendencies, not undesirable and no one will deny Mr. Briffault's contention that "the original of all social "bonds is that created by mother-love." But if this means anything it means that the social instinct is primarily familial and that the earliest social unit was the bilateral family, of which the clan is a later extension. Where promiscuity and group-motherhood are predicated there is no room for this "mother-love": group-mothers cannot individually love group-children. Or does Mr. Briffault mean group-mother-love, an abstraction of a Pandemic Aphrodite?

Mr. Briffault's failure to prove his thesis does not seriously detract from the great value of his book. Suggestive in outlook and inspiring in presentation it has shown us how circumscribed our knowledge still is and has opened up for us many new avenues of thought and inquiry, such as, for instance, the contribution of women to magic and religion and woman's place in the organisation of economic activities. But we are bound to confess that he has adduced no new argument sufficient to support his case for matriarchy. Group marriage and primitive promiscuity are still no more than hypotheses in spite of a few alleged examples of the former—examples which will not bear critical examination—and these hypotheses are still buttressed by false analogies and a type of argument which does not distinguish between group-marriage and group-access or between marriage and pre-nuptial or extra-marital relations. This is the rock on which, like his predecessors, Mr. Briffault also founders.

J. H. D.

#### Ethnology.

Schmidt.

*The Primitive Races of Mankind.*

By Max Schmidt. Translated by

A. K. Dallas. Harrap. Price 21s.

Whoever reads foreign languages with difficulty must feel indebted to those who perform the task of translating. It is, however, to be regretted that Mr. Dallas should have expended time and energy in turning into English a book which is of no value to the anthropologist, and misleading for the general reader, while the important contributions of Dr. Thurnwald and others remain untranslated.

Professor Schmidt's book is in two parts. The first concerns itself with a general survey of ethnology. In it the many aspects of human culture are divided into a number of categories and described in varying degrees of detail. Of these categories it can only be said that they cause much confusion and bear no true relation to anything in the life of either civilised or primitive man. They appear to be based upon the existence of an hypothetical "economic man" who is described on p. 58. This part is also unsatisfactory because the author treats sociology and religion as though they were of very little importance and it is clear that he ignores most of the recent works on these subjects. Even the description of material culture is often inaccurate or incomplete. Thus, on p. 64 he enumerates the different methods of preparing food and omits all mention of the earth-oven; while the accounts of what appear to be the fleam (p. 76) and kite-fishing in Melanesia (p. 116) render these barely recognisable.

The second part of the book has the same defects as the first. The author has attempted a descriptive survey of the world in one hundred and forty-three pages. This perhaps accounts for a number of serious omissions and inaccuracies. In illustration of these it is only necessary to turn to the section on Oceania. Here we are told that in Australia matrilineal descent is universal, and that "protection against the spirits of the dead is found in a special fetish, *tshuringa* . . . ." Whence certain statements concerning Melanesia are derived it would be hard to say; certainly not from the works of Parkinson, Codrington or Rivers.

The most serious fault of the book is perhaps the author's failure to recognise the interdependence of all aspects of human life. Thus, gardening and the exchange of goods are considered from the economic standpoint only; their relation to other sociological and religious matters is ignored, though a confession is made that "religious conceptions also sometimes enter into various forms of productive activity."

The translation is not altogether good, the result perhaps of the translator not being familiar with the subject; "cocco" in mistake, presumably, for "coconut palm," and "trepanation" as a substitute for "trepanning," make one suspect that other obscurities in the book may be due rather to the translator than the author. The photographs, with which the book is liberally illustrated, are very good and many of them will be new to English readers since they are from German sources.

C. H. W.

## Heredity.

Baur : Fischer : Lenz.

*Menschliche Erblchkeitslehre.* By Erwin Baur, Eugen Fischer and Fritz Lenz. 3rd edition. 1927. Pp. 601, figs. 172. **122**

This work first appeared in 1923 and the present edition will extend to two volumes, the first dealing with heredity in man and the second, which has not yet appeared, being concerned with selection in man and race hygiene. The present volume is divided into five sections. The first is an introductory account of the general principles of heredity and variation, in which many examples in animals and plants are cited. The second part, occupying 83 pages, is of special interest to anthropologists, since it deals with racial differences and their inheritance. After considering such features as hair and skin colour, cranial characters and physiognomy, the question of origin is discussed. The view is expressed that the origin of the human "races" or varieties was contemporaneous with the origin of man from lower primates. The section concludes with an illustrated account of the main races and mixtures of races occupying the eastern hemisphere. The Dinaric is recognised as one of the European types. The next section, occupying 240 pages, is concerned with the inheritance of physical and mental abnormalities. Many pedigrees are given and the origin of these conditions is extensively discussed from the experimental mutationist point of view. Another useful section is devoted to methods of studying human inheritance. The work is an important compilation of data and views concerning the inheritance of normal and abnormal characters in man. R. R. G.

## Technology.

Bonnet.

*Die Waffen der Völker des alten Orients.* By Hans Bonnet. Leipzig: J. C. Hinrichs'sche Buchhandlung. 1926. Pp. iv + 223. With 107 illustrations. No price. **123**

This is a detailed study of the weapons of antiquity, undertaken with a view to obtaining light upon early cultural relationships in the Near East. Give and take was as inevitable in weapons as in warfare, though there are many obstacles to the identification of ancient interchanges of ideas and types. The author has made a conscientious survey of the material available, upon the inadequacy of which he lays stress in his preface; especially conspicuous are the absence of "geschlossene Typenreihen" which would permit of the tracing of development within a culture, and of evidence to prove at what points in any series there were modifications due to foreign influence. The

result is that the comparative aspect is necessarily predominant, and that reconstructive aims had to be left to a large extent on one side. One sympathises with the author in what must have been a disappointment, though he could scarcely have expected to reach decisive conclusions. It would be interesting, to the reviewer, to discuss the evolutionary progress of some of the weapons described and figured, and to emphasise the influences of contact and conquest, but it must suffice to say that the book is a painstaking and valuable contribution to technology and archaeology. The author has drawn widely upon contemporary records for his illustrations, which are largely outline drawings. All of them are in the text, but no information of any kind is given below the figures—which may include as many as nine objects to a figure—and details have to be sought elsewhere in the book. This austerity goes

far to give the pages a bleak and arid aspect, discouraging especially to those weaker brethren who absorb descriptions of figures more readily than German text. Disciplinary treatment is not necessary to convince us that archaeology is a discipline.

H. S. HARRISON.

#### Sudan: Ethnography.

Fyfe.

*Savage Life in the Black Sudan.*

By C. W. Domville Fyfe. London: Seeley, Service & Co., Ltd. 1927.

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Mr. Fyfe visited Kordofan and the Bahr-el-Ghazal; to reach the latter he travelled up the Nile. He thus had considerable opportunities, but this book, which is written in a sensational strain—witness such chapter headings as "The blood-drinking Dinkas"—is hardly to be considered as a serious contribution to our knowledge of the Sudan or its peoples.

C. G. S.

### ANTHROPOLOGICAL NOTES.

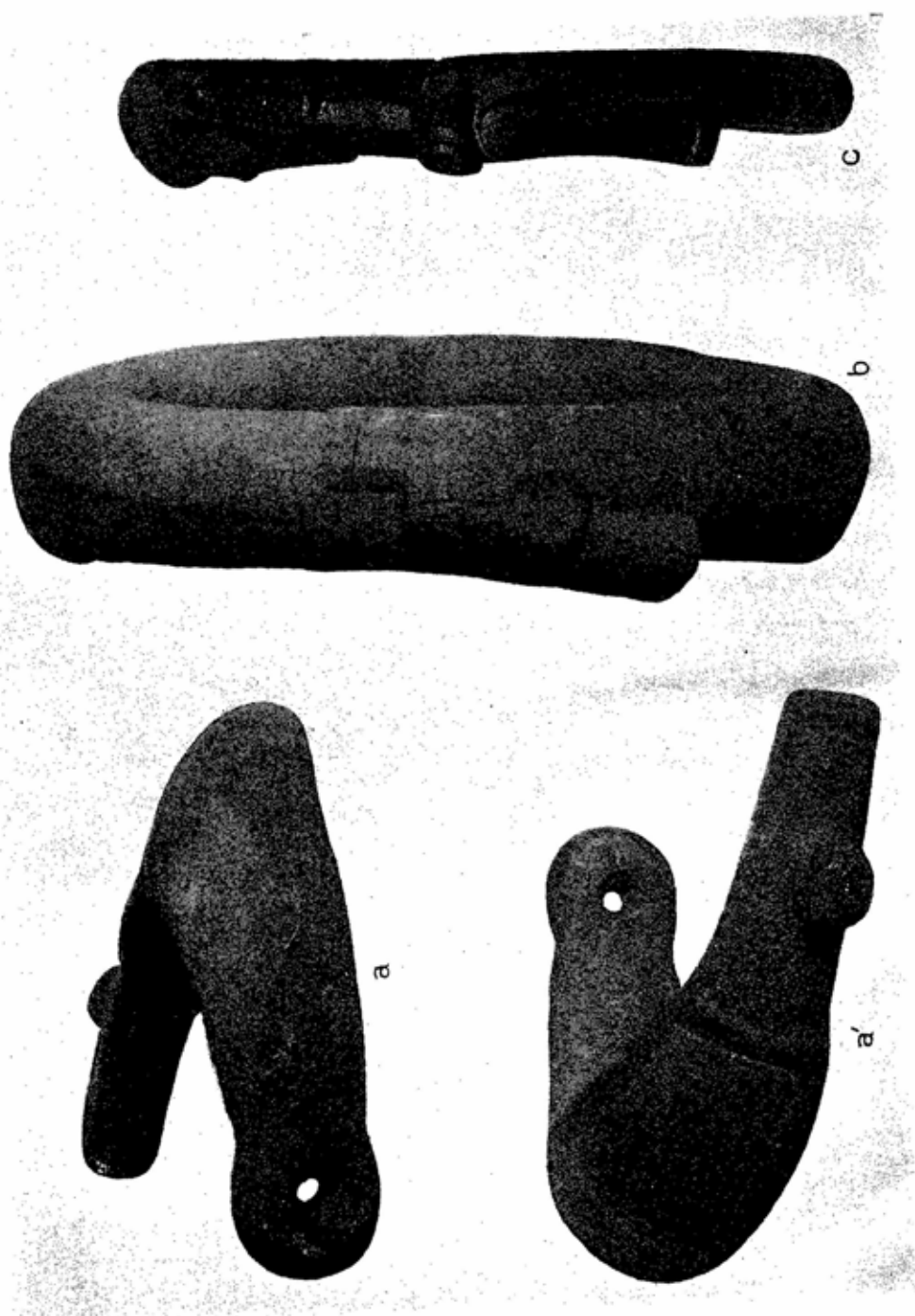
*Stonehenge Appeal.*—An appeal for a sum of £35,000 to purchase land on Salisbury Plain adjacent to Stonehenge has been issued by the Stonehenge Protection Committee, with the backing of the Prime Minister, Mr. Ramsay MacDonald, Lord Crawford and Balcarres, representing the Society of Antiquaries, Lord Grey of Falloden, representing the National Trust, and Lord Radnor, Lord Lieutenant of Wiltshire. The land upon which options have been secured covers an area of 1,444 acres and includes the unsightly aerodrome and other buildings near the monument, which, of course, will be cleared away in the event of the purchase being completed. The danger to Stonehenge from the encroachment of private buildings and commercial undertakings, which has been imminent for some years past, has been much increased lately by the development of motor traffic and the desire to provide entertainment for the increasing number of tourists. The addition of this land to the generous gift of Sir Cecil Chubb, by which Stonehenge was made the property of the Nation some years ago, should preserve the surroundings of the monument from anything derogatory to its dignity and unique character. It is hoped that this appeal for funds may receive the strong support which it deserves. The preservation of Stonehenge and its surroundings unimpaired is of even more than national interest: it is a matter of concern to all, whatever their nationality, who appreciate the importance of this wonderful relic of early man and his religious ideas. Contri-

butions should be addressed to the National Trust (Stonehenge Fund), 7 Buckingham Palace Gardens, London, S.W.1.

*Exhibition of the Peasant Industries, etc. of England.*—The Royal Anthropological Institute, acting in conjunction with the Wellcome Historical Medical Museum, is endeavouring to get together a collection to illustrate the traditional culture of the peasantry of England, especially objects connected with occupations, industries, and the arts, household utensils and implements, and the like. If possible, survivals from the Middle Ages and later periods will be illustrated, and it is hoped also to include a certain amount of comparative material from other parts of the British Isles. The exhibition will in the first instance be of a temporary nature, and it is hoped that it may be possible to arrange for it to be held in one of the buildings under public authority. There is at present no central collection illustrating the traditional peasant life of England as a whole, and, should interest in the exhibit warrant carrying the matter further, the temporary exhibit it is proposed to form might serve as the nucleus of such a central collection.

If members of the Institute or other readers of MAN have in their possession objects illustrating English peasant culture or English survivals which they would be willing to lend or give for the purpose of the exhibition, will they kindly communicate with Capt. L. W. G. Malcolm, Wellcome Historical Medical Museum, 54a, Wigmore Street, London, W.1?





PORTO RICAN COLLARS AND ELBOW STONES.  
*a, a'*, *b*, PEABODY MUSEUM, HARVARD UNIVERSITY. *c*, BRITISH MUSEUM.

## ORIGINAL ARTICLES.

With Plate K.

West Indies.

Lothrop and Lothrop.

**Porto Rican Collars and Elbow Stones.** By R. W. and S. K. Lothrop. **126**  
With Plate K.

Archæological investigation in Porto Rico has brought to light various objects of stone which, although exhaustively described by various writers, have never been satisfactorily explained. Among these the most perplexing are the so-called collars and elbow stones. The collars, in size and shape not unlike a horse collar, are classified as massive or slender. These types we illustrate in Plate K, *b* and *c*. Various skeuomorphic markings on the surface of these stone collars have led Mason\* and subsequent writers to the belief that their curious shape had its origin

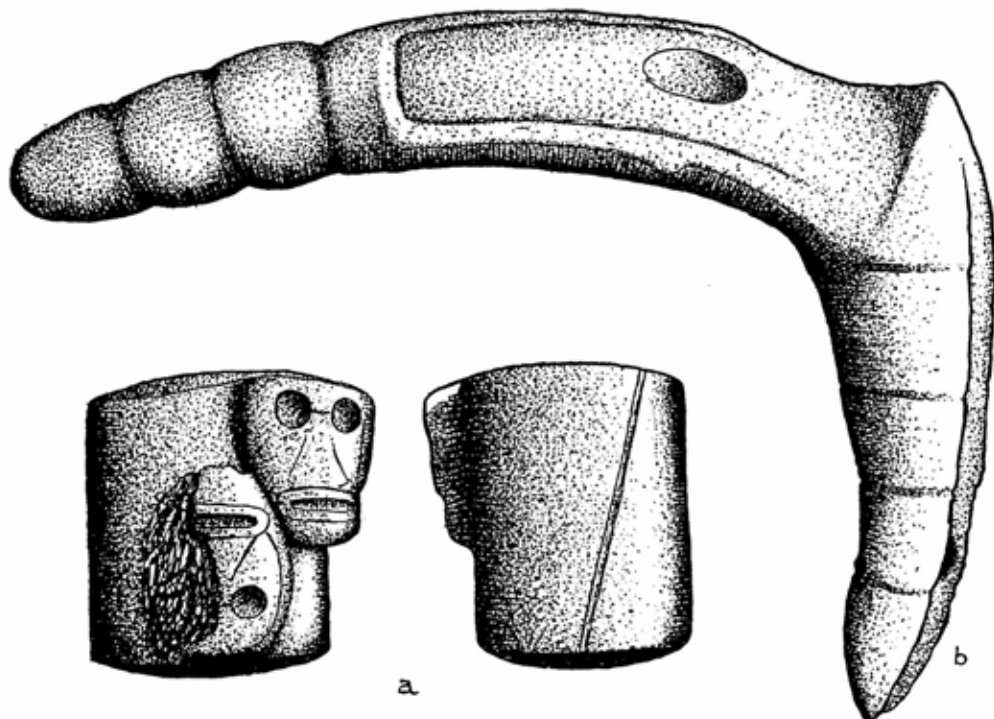


FIG. 1.—*a*, REWORKED FRAGMENT OF A COLLAR; *b*, ELBOW STONE. LENGTH OF *b*, 8½ INCHES.

in wood. Joyce† has established that the prototype of the slender class of collars was a  $\sqrt{\text{ }}$ -shaped wooden section, cut from the trunk and abutting branch of a tree, bent to form a pear-shaped loop, and lashed to retain this shape. The massive collars seem originally to have been made from a single stout staff, curved until the ends met, and bound in that position.

Mr. Joyce has also brought to light the unusual specimen shown in Plate K, *e*. This collar differs from the ordinary examples in having large knobs protruding from the clearly indicated interlocking ends. These projections, which Joyce believes

\* O. T. Mason, "The Latimer Collection of Antiquities from Porto Rico" in Report of the Smithsonian Institution for 1876. Washington, D.C.

† T. A. Joyce, "Prehistoric Antiquities from the Antilles in the British Museum." *Journal of the Royal Anthropological Society*, Vol. XXXVII, 1907. We are indebted to Mr. Joyce for the photograph reproduced in Plate K, *c*.

to represent the stumps of small branches, supplement the ligature employed to secure the loop in position. For many years this collar has been the only one of its type known. However, we now illustrate (Plate K, *b*) a massive collar similarly carved. From a scrutiny of these two specimens it seems probable to us that the protruding knobs may represent strong pegs driven into either end of the collar to secure it in place. In Fig. 1, *a*, we show a fragment of a broken collar re-used as a pestle. That it represents the junction of the collar is indicated by a diagonal line cut on one side. On the opposite surface are two carved knobs, clearly corresponding to the projections on the complete collars, but differing from them in that they are adorned with crudely cut human faces.

Elbow stones apparently form part of composite collars made of both wood and stone. The normal type (Fig. 1, *b*) corresponds in a general way to the shoulder of the slender type of collar, although the decorative details are not always displayed in identical fashion on the collar and elbow stone. Both ends of the elbow stone are often cut by a longitudinal trough encircled by small transverse grooves. The trough, we judge, received the butt of the wooden arch which completed the collar, while the small grooves prevented the lashings from slipping. A hole drilled through the bottom of the trough—in the right hand side of Fig. 1, *b*—probably socketed a peg to make the juncture more secure.

In Plate K, *a*, *a*<sup>1</sup>, we illustrate a unique elbow stone. On one arm is carved a boss suggesting the projections seen on the collars in the same plate. At the other end there is an opening, which may well have served for the insertion of a peg.

We have presented the specimens depicted not with the purpose of adding to the already multitudinous theories concerning their use, but to make them available to students. It seems probable that the questions raised by the mysterious products of Porto Rican archæology will eventually reach solution through interpretation of such aberrant and highly specialised examples rather than through further scrutiny of normal types.

R. W. LOTHROP.  
S. K. LOTHROP.

#### Africa: Games.

Driberg.

**The Game of Choro or Pereañi.** By J. H. Driberg. (Continued from MAN, 1927, 114.)

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#### Lango Variation.

The Lango game is in principle the same, that is to say, the object is to capture the opponent's marbles or to leave him immobile in ones. But the code includes one important addition and several variations.

(1) The opponent's marbles are *en prise* either if both holes opposite the player's are occupied or if only the hole of the front row. But if the opponent's front row hole is empty and there are marbles in the corresponding hole of the back

row these are not *en prise*. Thus in  $\begin{matrix} A & \bullet \\ B & \bullet \end{matrix}$  and  $\begin{matrix} A & \circ \\ B & \bullet \end{matrix}$  A's marbles are *en prise*; but in  $\begin{matrix} A & \bullet \\ B & \circ \end{matrix}$  A's marbles are not *en prise*.

(2) An incremented lap in a move does not begin at the starting hole of the previous lap, but at the hole opposite which the increment was taken—e.g., a player moving 4 marbles from *b* drops them in *c*, *d*, *e*, *f*, and opposite *f* takes an increment of 3 marbles from GN. Under the Didinga code he would start dropping the three marbles at *b*, but under the Lango code he drops them at *f*, *g*, *h*. Should there be only a single marble however in the opponent's front row hole and none in the corresponding back row hole, this marble is taken up together with whatever marbles are in the player's corresponding hole and these are dropped singly from the next

hole. Thus in the last example supposing that instead of 3 marbles from GN the player took only 1 marble from G, he would add to this his own marbles from f and start dropping them from g onwards.

(3) Whereas in the Didinga variant every move must be started by the player lifting a group of his own marbles and continuing the motion until he reaches a hole at which he stops, during the course of which he may have been in a position to capture some increment from his opponent: in this variant if the opponent's marbles are *en prise*, he must first take these and start dropping them at the hole opposite that from which they were taken, e.g., the player has a marble at f and his opponent is *en prise* at GN: the player must first take up the marbles from GN and drop them singly from f onwards and so continue the move in the usual manner. If more than one group of the opponent's marbles are *en prise* the player may choose the group which will be the most advantageous to himself. If none of the opponent's marbles is *en prise* the player starts his move in the same way as under the Didinga code. It is clear accordingly that in this variant a single marble in the front row may save the game even if all other marbles are taken, as it may *ipso facto* take any marbles in the hole opposite it.

(4) The blocks of holes IJKL and ijkl form the turning bases of players A and B respectively. From these bases moves or laps may be played either clockwise or counter-clockwise, subject to the condition that a move or lap may only be played clockwise in order to take an increment which is *en prise*.

After a lap played clockwise from the turning base, the marbles captured from the opponent may again be played clockwise from the same hole as originated the clockwise lap if their number suffices to take another increment, and this movement may continue as long as the captured marbles permit fresh increments. When no fresh increments are possible, the move must continue counterclockwise, starting from the hole opposite the last increment; but if during the course of the move the player on returning to the turning base finds another opportunity of taking his opponent's marbles by a clockwise lap, he is at liberty to do so.

A player is not compelled to play clockwise even if an opponent's marbles are *en prise* in that direction, and it is sometimes a tactical gain to pass such an opportunity.

A {	B5	A	P	O	N	M1	L	K
	C1	D2	E3	F4	G7	H2	I	J
B {	j1	i3	h	g	f1	e3	d	c6
	k3	l3	m	n	o	p	a	b

In this diagram\* it is B's turn to play and his opponent's marbles are *en prise* at CB, D, G, and HM. His most advantageous course is to take the 7 marbles at G, and in the usual way he drops them at f, g, h, i, j, k, l. At l he has in this way increased the 3 marbles to 4, and he now plays them clockwise, dropping them at k, j, i, h (h is no longer empty as the player dropped a marble here in the previous lap). He takes the 3 marbles from E, and as the 2 marbles at D will then be *en prise* he plays them at k, j, i, taking the 2 marbles at D. These 2 he plays at k, j, taking the 6 marbles at CB. As there is nothing more left *en prise* he must play the 6 counterclockwise starting at j, and the move continues in the normal way.

The opening is played in the same way as in the Didinga variation, with the exception that the players must start either at aA or bB. Clockwise motion from the turning base is also permitted during the opening under the conditions described above. The opponent's marbles are never *en prise* to the player's back row.

\* Not all the marbles are shown in this diagram, in which the disposition is purely arbitrary and illustrative.

*Acholi Variation.*

This appears to be the Didinga variation modified by an adaptation of the Lango turning base, and its essential features may be summarised as follows. It will be seen, however, that the modifications are such that the game under this code differs materially from both the Didinga and the Lango variations.

(i) As in the Didinga variation and in contrast with the Lango code, an incremented lap begins at the starting hole of the lap leading up to the increment.

(ii) The opponent's marbles are not *en prise* at the beginning of the move but the player has first to move some marbles in order to reach the requisite position. That is to say, none of the opponent's marbles can be taken before at least one lap has been played. This again conforms with Didinga usage.

(iii) The opponent's marbles are *en prise* only if, as in the Didinga code, both of the opponent's holes are occupied opposite an occupied hole in the player's front row in which the player drops the last marble of a lap. It is not permissible to take an increment if only the opponent's front row hole is occupied, as is allowable by Lango practice.

(iv) The turning base has been incorporated in a modified form :—

(a) Clockwise motion is permitted only from IK and ik.

(b) As in the Lango code, clockwise motion is only permitted in order to take the opponent's marbles which are *en prise*.

(c) When an increment is taken the captured marbles are all placed in the hole from which the lap leading to the increment started.

(d) If the increment is taken from the first lap of a move and the captured marbles, played clockwise, suffice to take another increment, they are taken from the hole and so played : but if there is no fresh increment available they must be played counterclockwise in the usual way starting from the hole forward of the one in which they have been deposited.

(e) Alternatively the player may start the first lap in this way with a clockwise move from the turning base leading to an increment and after depositing the captured marbles in the hole from which the lap started may leave that lap entirely. He may then, if it is available, play another clockwise move from the other portion of the base and after taking the increment leave it in the same way. Having done all the execution possible by clockwise moves, he may start the move proper from that or from any other part of the board counterclockwise.

(f) The rules given under (d) and (e) apply to a clockwise motion from the turning base at the beginning of a move only. If during the course of a move a player's marble ends at iI or kK, at which there is already one marble or more, he may, subject to an increment being available, play *one* lap, *but only one*, clockwise. After taking the increment he proceeds again counterclockwise with the captured marbles, starting at jJ or iL, as the case may be. If the move continues and he again returns to the turning base and finds other of the opponent's marbles *en prise*, he may similarly play *one* clockwise lap and continue counterclockwise as before. That is to say, apart from preliminary attacks, in each circuit of a move only one clockwise lap is permitted.

The following examples illustrate the play at the turning base :—

B9	A3	P	O2	N3	M1	L	K1
C1	D	E	F3	G3	H7	I	J2
j	i	h2	g1	f2	e4	d	c
k5	l	m	n3	o	p	a	b4

It is B's turn to play and he may make the following moves:—

He may take the 5 marbles from k and drop them at j, i, h, g, f, where he captures 6 marbles from GN opposite and places them at k. With these 6, again clockwise, he can take 8 marbles from HM by playing them to e, which he proceeds to do, placing the captured 8 marbles in k. Leaving them he goes to i, which was originally empty but now contains 2 marbles dropped in the last two laps. He plays these at h and g and takes 5 marbles from FO which he places at i. As there is nothing more for him to take clockwise, he may now proceed to play these 5 marbles at i counterclockwise or may start the move proper anywhere else. If he continues from i he would drop the marbles at j, k, l, m, n where he finds 3 marbles, making 4 which he drops at o, p, a, b, where there are 4 marbles + 1 = 5. These he drops at c, d, e, f, g. At g owing to the play in the previous laps there are now 4 marbles and as FO have already been emptied he must play these 4 + 1 marbles in the usual manner until his move comes to an end.

Alternatively B could have played as follows, but without a full board one cannot predict which would be the better course:—

Taking the 4 marbles from b he plays them at c, d, e, f, where he captures 6 marbles from GN. These he plays at c, d, e, f, g, h, where there are two marbles. These plus the one played bring him to k—5 + 1 marbles. From k he moves clockwise playing them at j, i, h, g, f, e, taking 8 marbles at HM, but though JK are *en prise* clockwise to these 8 marbles he is debarred by rule (f) from playing this move and must continue counterclockwise from l. This will bring him through l, m, n, o, p, a, b to c, where he takes 3 marbles from JK and plays them at l, m, n and so on.

The opening is played in the same way as under the Didinga code with the addition of clockwise moves from the turning base. For the purpose of the opening only, the opponent's marbles are *en prise* to the player's back row, as has been described in the paragraph dealing with the Didinga opening.

Note 1.—The terms employed above are improvisations, as the native technical terms would only tend to complicate the exposition. Actually technical terms are few and are curiously consistent:—

English.	Lango.	Acholi.	Didinga.	Explanation.
hole	awi	kul	korok	all = cattle kraal
CB, cb	wich	wich	ô	„ = head
JK, jk	pyer	pyer	thugum	„ = loin
front row	cheng	cheng	kor	„ = sun
back row	dyewor	dyewor	mugur	„ = darkness
turning base	aloka	alok	—	„ = turning
marble	dyang	dyang	tang	„ = cow
marbles	dok	dyang	ten	„ = cattle

Note 2.—The Longarim and Topotha sometimes increase the number of holes from 4 rows of 8 holes to as much as 4 rows of 16 holes with a corresponding increase in marbles, but this makes no difference to the rules governing the game, though it must obviously affect the play. Apparently the change is only introduced experimentally and if the players are getting bored with the usual game after a long sitting.

J. H. DRIBERG.

## Anthropology, Physical.

Ashley-Montagu.

### A Proposal for a New Base-Line for use in Craniometric Investigations. By M. F. Ashley-Montagu.

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In 1925 Mr. W. P. Pycraft published an important paper entitled "On the Recognition of Several Species of Post-Mousterian Man: And the need for Super-

seeding the Frankfort Base-Line,"\* in which it was pointed out that our present craniometric methods and prolific schemata for the classification of Man needed to undergo an immediate and drastic revision, that many of our time-honoured concepts from the anthropological viewpoint are hopelessly mixed up and in a state of "mush," and it was suggested, further, that instead of continuing our efforts to classify Man on the basis of "Average Indices"—a practice which has been found most unsatisfactory—we should "adopt the methods of the Zoologists, and "throw our old traditions to the winds." Finally, Mr. Pycraft described a new Base-Line of his own for use in craniometric work—the Meato-Nasion Line—a line which passes through the centre of the auditory meatus forward to the nasion. In dealing with this line Mr. Pycraft made it abundantly clear that the Meato-Nasion Line suggested by him was much superior to the Frankfort Horizontal, which he urged, for very good reasons, should be discarded in favour of the newly proposed line.

Some of the major advantages possessed by Mr. Pycraft's line are that (1), it can be used for calvaria in which the facial region is wanting, that (2), in the normal skull it practically cuts off the whole of the face from the calvarium, thus emphasising the salient points of the two, and that (3), after the facial angle has been taken, one has but to add 20 to the number given by that angle to obtain the Alveolar Index as obtained on the calculation devised by Flower. These, particularly the last, are important considerations, and yet, though the paper in which they are incorporated has been before anthropologists for some time now, they have not received the attention that they unquestionably deserve. It is hoped that the present brief communication will meet with a better fate.

The main object of this paper is to bring to the notice of anthropologists yet another new Base-Line which I have been using for some time, and which I believe to be an improvement upon Mr. Pycraft's line. Mr. Pycraft has himself most generously expressed his willingness to adopt this newly proposed line.

The Base-Line now proposed is one which passes from the nasion backwards through the porion (the superior point in the margin of the auditory meatus, as in the Frankfort Horizontal). It will be seen that my Base-Line differs but slightly from Mr. Pycraft's, yet the difference is an important one.

Mr. Pycraft's centre of the meatus, taken as a point of reference, suffers together with that of Geoffrey de St. Hilaire's (1795) and Jules Cloquet's (1821), from the disadvantage that it is rather a vague point, which in practice can at most but lead to an arbitrary determination, and is, furthermore, difficult to find when the skull is fixed upon any of the craniophores in common use. It is not exact enough. Whereas, if we substitute for the centre of the meatus the superior point in the margin of the auditory meatus—the porion—we shall have a point which is in the nature of a constant factor and can be determined at once by inspection—a point which is, in short, mathematically more exact. It is primarily for this reason that the Base-Line now proposed is considered to be superior to the Meato-Nasion Line of Mr. Pycraft.

Let us consider for a moment some of the advantages possessed by the Nasion-Porion Line as opposed to the Frankfort Horizontal.

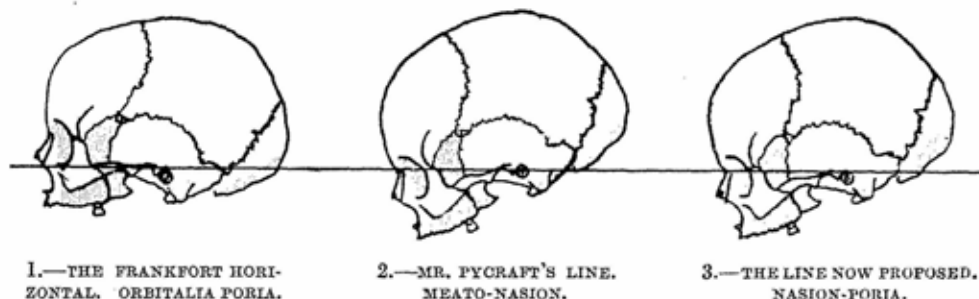
In the first place it will be observed that the Frankfort Horizontal rests upon four points, the poria and the orbitalia, unlike the Nasion-Porion Line, which rests upon three only, the mid-point of the nasion and the poria. Now, as every anthropologist should know, there are very few skulls in existence which are perfectly symmetrical, and the Frankfort Horizontal, since it rests upon four points, will therefore but rarely describe the approximate parallelogram relative to the

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\* See MAN, 1925, 105, 117.

plane upon which it is placed as exactly as its champions believe it will. On the other hand, the Frankfort Horizontal in the great majority of cases is but an approximation to the real plane, and is not, in fact, the exact and uniform position its champions claim it to be. The Nasion-Porion Line suffers from no such defect, for on its three-point ordinates with the mid-point of the Nasion as the pole, errors arising from such a source are reduced to a minimum, if not entirely eliminated. Thus the Nasion-Porion Base-Line provides a relatively exact and uniform position wherein a skull may be placed with the minimum of labour and the maximum degree of accuracy and utility.

In the second place, it is said by the originators of the Frankfort Horizontal that its great advantage is that it places a skull in the position it occupied during life when its owner was looking straight ahead of him. I do not in any way see that this



is an advantage. "But it is," exclaim its champions, "for it facilitates the comparison of measurements taken on the living head, which is naturally in this plane, with those taken on the bare skull. This surely is a great advantage." To these statements we must reply that the assumption that the Frankfort Horizontal places a skull in the position it occupied during life is purely gratuitous, for the truth of the matter is that this plane varies to such an extent in different individuals in its relation to the true horizontal of the head, *the visual axis*, that no matter what plane we adopt as our standard, it must inevitably be an artificial one, for where the individual variation is so great it becomes quite impossible to lay down any hard-and-fast rule in the matter of planes.

Further, as far as the facilitation of measurements on the living head is concerned, it must be pointed out that it is quite as easy to set the living head in the Nasion-Porion position as it is in the Frankfort Horizontal, and, it may be added, that for the subject undergoing the examination it is a far more comfortable position—a consideration in practice of no little importance.

Thirdly, as was acknowledged in the Frankfort Agreement (1882), in skulls in which the facial region is altogether wanting, an exact determination of the Frankfort Horizontal plane is impossible. It was suggested, therefore, in the text of the Agreement that in such cases certain fixed anatomical points should be selected as starting-points for the principal measurements without any reference whatever to the Frankfort Horizontal. At the present time, however, by using the average values of the Calvarial Base Angle and Schwalbe's Frontal Angle, it is possible more or less to place a skull approximately in its proper position—very approximately.

Needless to say, apart from the disproportionate amount of labour involved, the results obtained by the use of such "methods" must continue to remain unconvincing. The whole thing is from every point of view in a most unsatisfactory state. As soon, however, as we substitute the Nasion-Porion Base-Line for the

Frankfort Horizontal all such objections vanish immediately. With this Base-Line it is as easy to orient a calvarium as it is a cranium. The saving of labour is immense, and the results yielded are, as far as is possible in dealing with such difficult material, exact and accurate.

Finally, another advantage possessed by the Nasion-Porion Line is that, apart from facilitating the special study of the particular regions without having to appeal to any variable line of reference, it separates the brain-box or calvarial portion of the cranium from the facial portion, and corresponds more or less exactly to a line drawn tangent to the inferior limits of the brain, thus clearly marking off the two regions from one another, and serving to bring out any unusual features in the relations of the one to the other. In this respect the Frankfort Horizontal is perfectly useless, for it passes right through the middle of the face and in this way tends to diminish the chances of detecting some unusual lineament or other feature, which in the Nasion-Porion Line would be made apparent immediately because of the pronounced separation between the face and the calvarium brought about by this line.

The argument put forward by some that it is now too late to adopt a new Base-Line because the Frankfort Horizontal has now been in use for 45 years is no argument at all. Mr. Pycraft has, I think, sufficiently disposed of it. But this I must say, that, even if the Frankfort Horizontal had been in use for a thousand years, there is and can be no justification whatever for employing a faulty method of investigation—more particularly so when there is a more exact alternative method in existence. It is my opinion that every scientist worthy the name is under an obligation to reject immediately any method of investigation he may have been using as soon as he has been made aware of its faultiness. Treason against tradition is an old and favourite crime among scientists: I here urge them to commit this crime once more by adopting the Nasion-Porion Line and relegating the Frankfort Horizontal to its proper place—the Academy of Scientific Curiosities.

M. F. ASHLEY-MONTAGU.

## Fiji: Archæology.

Hocart.

### Fijian Round Barrows. By A. M. Hocart.

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Doubts have been expressed whether in my "Kingship"\* I was justified in using a woodcut from Williams's "Fiji and the Fijians" as evidence of round barrows in Fiji. I may say straight away that I have made inquiries from Mr. A. Haskell and his inspection and inquiries definitely prove that Williams was inaccurate, and that Nautuutu was undoubtedly square, not round.

In the meantime I had been working through my notes on Vanua Levu and there rediscovered a round barrow which I had seen with my own eyes, but had forgotten in the then more absorbing pursuit of the ceremonies of renewing the land.† This round barrow is near the village of Namoka, in the tribe of Ndreketi, towards the west end of the north coast of Vanua Levu. It is not a "sport," for I have the general statement of the people to this effect:—

"The temples were round (molimolingi), like a house in Navosā,‡ with only one door. The apex was pointed like a hanging lamp. It was made with the same

\* Clarendon Press, p. 169.

† *ib.*, p. 189.

‡ That is the western hills of Viti Levu. The houses there are really square in plan, but I have been told, even by Europeans, that they are round. This impression is caused by the apex, which is round.

materials as a house, only it was ornamented; the wall-thatch was inside barkcloth, outside Parinarium Laurinum, A. Gray."

I went to see the emplacement (*ituvatura*) of the temple (*sava*) at Nasinasina: it was round with no angles, and the diameter four paces. They said great chiefs were buried there, and there chiefs were waited upon.\* The house over the mound, they said, was so high that from the top you could see the mangrove swamp of Nanaoño, though there is a hill about a hundred feet high in the way. The temple was not on the mound, but the mound was inside the house. My guide thought the house was round, not angular. The mound is the "holy land" (*vanua tambu*), and no one may tread upon it.†

It is quite possible that Williams had seen one of these round mounds and was only wrong in labelling his sketch "Nautuutu."

At Nambuna, a village subject to Ndreketi, I saw a square mound five paces each side. I saw an oblong one in Searaŋga, an adjoining tribe. All three forms are thus found together.

The building of the mound over, not on, the mound leads to an interesting study of sociological processes. In my "Kingship" I traced the tee of a Buddhist tope to a square shrine built on the tumulus, just as was done in Fiji. There was, and in Ceylon still is, a custom of building a temple not on, but over, the smaller topes. Full details will be found in the *Ceylon Journal of Science*, section G, vol. I, part 4, now in the press.‡ What has happened is apparently this: the house on the top of the tumulus has literally become petrified, and gradually lost its meaning, and people have, therefore, begun to build another house over the whole. The process is one familiar to philologists. Thus in French *suicider* means to kill oneself; but the masses do not know that *sui* means self, they feel the need to express the idea of self and so they say *se suicider*, which is really self-killing oneself. Those who know their Latin know that the idea of self is contained in the word *suicide*, and so they speak of committing suicide.

In Fiji the house on the top has not become conventionalised, and therefore the house over the mound is not the result of reduplication through loss of meaning. It appears to be an alternative, possibly due to the small size of the mound. Possibly this alternative existed before the separation of the Indian and the Fijian round barrows; but the simultaneous appearance of the two alternatives seems to be peculiar to the Indian world, because there the shrine on the top has become conventionalised, and therefore meaningless.

A. M. HOCART.

## REVIEWS.

Hungary: Anthropology,  
Physical.

Bartucz.

*Altungarische Schädel.* Von Dr. 130  
Ludwig Bartucz. *Ethnographische  
Sammlungen des ung. Nationalmuseums.*  
V. Budapest, 1916. Pp. 23 + xl. (In  
Magyar and German.)

This paper is chiefly concerned with a description of 74 mediæval (ninth century) Hungarian skulls, collected from several

scattered cemeteries, and it provides the first account of the population of the country of that time which is of any permanent value. By sexing the material anatomically, 31 ♂s and 44 ♀ individuals were distinguished and the preponderance of the ♀s was supposed due to the fact that a considerable number of the men had died on battlefields. All the more important direct and indicial mean measure-

\* Ngaravi=to face, wait upon, serve, worship.

† See MAN, 1915, 3.

‡ Dulau & Co., 34, Margaret Street, Cavendish Square, W.1.

§ It is stated in the text that there were only 30 ♂s, but a few ♂ means are given based on 31 individuals. Another slight discrepancy may be noted: the mean basio-bregmatic height is based on only 26 skulls and the same number is given in the frequency diagram for that character, but for the indices involving the basio-bregmatic height 27 skulls were used.

ments for the two sexes are given according to Martin's instructions,\* but there are no angular measurements. There are no lists of individual measurements, but for a few characters they may be read off, with some difficulty, from the less valuable frequency diagrams provided. This series of skulls is just long enough to make possible the determination of the racial affinities of the people it represents, providing that it may be supposed racially homogeneous. If heterogeneous, however, its value is very considerably reduced and one may not hope to draw any definitive conclusions from the material. The writer apparently had little hesitation before arriving at some very definite deductions. On the second page we are told that the fact that the greater number of the skulls have large capacities is evidence of the predominating mongoloid structure of the population. Then the sexual differences are supposed to be greater than those between men and women of the same race, although the differences between the ♂ and ♀ mean indices are statistically insignificant. It is unusual, and encouraging, to find both means and standard deviations given together with their probable errors, but the writer seems to have had little conception of the uses to which those constants might have been put. The measurements are subjected to a detailed analysis, but it leads nowhere as no comparative material whatever is used except the cephalic indices of 23

Hungarian crania of earlier date. Dr. Bartucz concludes from the characters of the facial skeleton that 39 per cent. of the men and 54 per cent. of the women show mongolian affinities, but not the slightest attempt is made to substantiate that view by metrical comparison and the reader is lost in amazement when he is confronted with such magnificent conclusions as the following:—

"Das Altungartum bildet also nach unseren Daten ein solches Rassenkonglomerat, welches aus drei Hauptelementen u. zw. aus der ostbaltischen, mongolischen und kaukasischen Rasse besteht. Zu diesen gestellt sich ein geringerer Einschlag von mediterraner und nordischer Rasse."

We are not told how this anthropological conjuring trick is done, but it certainly has nothing to do with the measurements, as no attempt is made to separate those of the supposed racially different groups, and no data whatever relating to other races are used. It will be of interest to compare these results with those suggested by purely statistical methods of comparison.

It may be noted, in the first place, that, judging from the standard deviations of characters, there is no reason to suppose that this small sample of mediæval Hungarian skulls represents a population which was appreciably more variable than that found in a London plague-pit or a single dynastic Egyptian cemetery. Assuming, then, that it is reasonably homogeneous, we may suppose that it represents a single racial type and its mean measurements

\* Rudolf Martin, "Lehrbuch der Anthropologie." Jena, 1914.

Table I.—Coefficients of Racial Likeness between Series of Eastern European Skulls.†  
Male Means.

	Mediæval Hungarians (27-0).†	Magyars (28-9).	Rumanians (40-0).	Slovenes (50-6).	Greeks (89-7).	Turks (66-7).	Mediæval Bohemians (49-8).	Mediæval Austrians (41-5).
Mediæval Hungarians (27-0).	—	0.67 ± .21 [19]†	3.39 ± .22 [18]	3.89 ± .21 [19]	3.10 ± .20 [22]	2.04 ± .21 [19]	11.11 ± .22 [17]	17.30 ± .29 [10]
Magyars (28-9) -	0.67 ± .21 [19]	—	0.30 ± .19 [24]	0.67 ± .19 [22]	3.01 ± .19 [24]	3.52 ± .19 [25]	9.16 ± .22 [17]	19.27 ± .30 [9]
Rumanians (40-0)	3.39 ± .22 [18]	0.30 ± .19 [24]	—	1.20 ± .19 [23]	3.43 ± .19 [24]	4.56 ± .18 [26]	14.24 ± .22 [17]	32.44 ± .30 [9]
Slovenes (50-6) -	3.89 ± .21 [19]	0.67 ± .20 [22]	1.20 ± .19 [23]	—	4.77 ± .19 [23]	5.02 ± .19 [23]	19.77 ± .21 [20]	41.41 ± .30 [9]
Greeks (89-7) -	3.10 ± .20 [22]	3.01 ± .19 [24]	3.43 ± .19 [24]	4.77 ± .19 [23]	—	2.32 ± .19 [24]	15.53 ± .21 [20]	32.39 ± .30 [9]
Turks (66-7) -	2.04 ± .21 [19]	3.52 ± .19 [25]	4.56 ± .18 [26]	5.02 ± .19 [23]	2.32 ± .19 [24]	—	25.86 ± .22 [17]	40.49 ± .30 [9]
Mediæval Bohemians (49-8).	11.11 ± .22 [17]	9.16 ± .22 [17]	14.24 ± .22 [17]	19.77 ± .21 [20]	15.53 ± .21 [20]	25.86 ± .22 [17]	—	1.71 ± .30 [9]
Mediæval Austrians (41-5).	17.30 ± .29 [10]	19.27 ± .30 [9]	32.44 ± .30 [9]	41.41 ± .30 [9]	32.39 ± .30 [9]	40.49 ± .30 [9]	1.71 ± .30 [9]	—

† The numbers in round brackets following the designations of the races are the mean numbers of skulls available for the characters used in computing the coefficients: the numbers in square brackets below the coefficients give the number of characters on which each is based.

may be compared with those of other cranial series representing racial types. A superficial comparison enables us to say at once that the European races which most closely resemble the Hungarians are to be found among the Slavonic and allied peoples. The most similar series available are five modern ones of Magyars, Rumanians, Slovenes, Greeks and Turks—all measured by Weisbach. From the coefficients of racial likeness\* computed between the mean measurements (Table I), it is clear that the relationships between the ninth century Hungarians and the modern series are remarkably close.† It may be concluded that the mediæval Hungarians and the modern Magyars, as represented by these series, are so closely alike that, as far as we can tell, they belong to identically the same race. But while the modern Magyars are also indistinguishable from the Rumanians and Slovenes, the tie between the earlier Hungarians and those two types is not so close. Such a state of things might easily have been occasioned if the ninth century population had been intermixed with the peoples to the north at some later time, but far more ample material would be needed to prove such a theory. It is at least evident that the skulls measured by Dr. Bartucz belong to that family of races which is spread to-day over a large part of Central and Eastern Europe and which includes the Slavonic-speaking peoples. We seem to have good reason to believe that they represent a pure member of that family.

It is well known that even later than the ninth century the western Slavonic peoples were not settled in the lands which they inhabit to-day. So-called "Nordic" tribes were then living in part of Central Europe and there was certainly contact between the two very diverse physical types, if not actual overlapping and intermingling. The craniometric material likely to throw light on the racial history of those regions in mediæval times is not ample, but two adequately long series may be used. One consists of 110 sixth to twelfth century Bohemian skulls measured by Matieka and

the other of 118 seventh to eleventh century skulls from cemeteries in the Austrian *Wohngebieten der Altslawen* measured by Toldt. The Austrian material was, unfortunately, in a bad state of preservation and only a few calvarial characters are available for comparison. The coefficients of racial likeness between the two series and with the contemporary one from Hungary and the modern Slavonic series are given in Table I. The mediæval skulls from Bohemia and Austria evidently represent very similar racial types as the coefficient between them is as low as 1.7, but, from the fact that their coefficients with all the other series are high, we may suppose that they had little, if any, admixture of Slavonic blood. The distinction made between the two groups is a perfectly clear one, but it may be noticed that the coefficients between the Bohemians and the races belonging to the Slavonic family are all rather less than the corresponding ones between the mediæval Austrians and

Table II.—Coefficients of Racial Likeness between Eastern and Western European Series of Skulls. Male Means.\*

	Anglo-Saxons (41-2).	Swedish Prehistoric (42-9).	British Iron Age (53-4).
Mediæval Austrians (41-5).	0.75 ± .29 [10]	0.08 ± .29 [10]	0.37 ± .30 [9]
Mediæval Bohemians (40-8).	4.84 ± .21 [19]	3.96 ± .22 [17]	3.56 ± .22 [18]
Mediæval Hungarians (27-6).	12.06 ± .18 [28]	15.70 ± .20 [21]	14.00 ± .21 [19]

\* The numbers in round brackets following the designations of the races are the mean numbers of skulls available for the characters used in computing the coefficients: the numbers in square brackets below the coefficients give the number of characters on which each is based.

the same types. That would invite the suggestion that the Bohemians had been slightly intermixed with Slavonic blood, while the Austrians may have been entirely free from it, but the fact that the comparison with the latter series is confined to calvarial characters renders any deduction of that kind unreliable.†

Since the mediæval skulls from Austria and Bohemia are so unlike the Eastern types, it may be asked whether any others can be found which will resemble them closely. The most similar types are evidently to be found among the meso-

\* See Karl Pearson, "On the Coefficient of Racial Likeness." *Biometrika*. Vol. XVIII. 1926. Pp. 105-117.

† In calculating coefficients of racial likeness, it is very seldom that values are found which do not differ significantly from zero, indicating that the two samples might have been drawn from identically the same racial population. Out of 483 coefficients found between pairs of European series only seven fulfilled that condition; of those seven there are three in Table I and three others in Table II below. Great stress may be laid on the closeness of the relationship between those pairs of races.

† The coefficients between the Bohemians and the Slavonic series calculated for the ten characters available for the Austrian skulls are all appreciably higher than the corresponding ones given in Table I, though each is still less than the corresponding one between the Austrians and a Slavonic series.

cephalic types of Western Europe. From the coefficients given in Table II it appears that, as far as the evidence enables us to tell, the Austrian series might have been drawn from any one of the populations represented by Anglo-Saxon, British Iron Age or Swedish Prehistoric skulls.\* The Bohemians and the Western types are not so close and the mediæval Hungarians are widely removed from them, as might have been expected.

From this hasty comparison it is reasonable to conclude that the recently-measured series of Hungarian skulls represents a race which is a true and unhybridised member of that family of races which inhabits the greater part of Eastern Europe to-day and which is chiefly made up by the peoples speaking Slavonic languages. The type is almost identically the same as that of modern Magyars and it shows no affinity whatever with the contemporary ones found in Bohemia and Austria. The above would seem to be a good example of the use to which Professor Karl Pearson's method of the coefficient of racial likeness may be put. The conclusions arrived at in that way are radically different from those drawn by Dr. Bartucz from his purely qualitative analysis of the material. By using the one method two independent workers will reach the same end: by using the other an uncontrolled judgment is arrived at which must be taken on faith and which will almost certainly not be precisely the same as that given by any other physical anthropologist.

Appended to this paper are the reduced sagittal contours of 66 skulls and reduced dioptrographic tracings of 21 skulls in 4 *normæ*. In the text (p. 19) the statures, which were apparently found from the extended skeleton, of 25 ♂ and 31 ♀ individuals, are given as 1,637 mms. and 1,529 mms. respectively. Both are slightly below the corresponding means found for the living Hungarian population. No other skeletal measurements are given. The mean cranial measurements furnish a record of permanent value, but it is to be regretted that they are not accompanied by those of the individual skulls.

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6. C. Toldt: "Die Schädelformen in den österreichischen Wohngebieten der Altslawen—einst und jetzt." *Ibid.* Band XLII. 1912.

7. H. Matieka: "Crania Bohemica. 1. Theil. Böhmen's Schädel aus dem VI-XII. Jahrhundert." *Ibid.* 1891.

(The second part of this work has not yet appeared.)

8. G. M. Morant: "A First Study of the Craniology of England and Scotland from Neolithic to Early Historic Times, with special reference to the Anglo-Saxon Skulls in London Museums." *Biometrika. Vol. XVIII.* 1926.

Measurements of Anglo-Saxon and British Iron Age skulls are given in this paper.

9. G. Retzius: "Crania Suecica." Stockholm. 1900.

10. C. Fürst: "Zur Craniologie der Schwedischen Steinzeit." *Kongl. Svenska Vetenskaps-akademiens Handlingar. Band XLIX.* Stockholm. 1912.

The Swedish measurements used in computing the coefficients in Table II above were found by pooling the data provided by Retzius and Fürst. G. M. MORANT.

Religion. Hocart.

*Kingship.* By A. M. Hocart. Oxford University Press. 1927. 131 Pp. vii and 250. 18 illustrations. Price 12s. 6d.

Like everything Mr. Hocart writes this handsome book\* is provocative, full of learning, stuffed with information honestly come by and ingeniously applied. To read it is a pleasure, to agree with at least some part of it almost an intellectual necessity, and to disagree with much of it, a thoroughly reliable cure for boredom; for the author's habit of thinking keenly has a happy knack of communicating itself in greater or less degree to the reader.

The main thesis has nothing in the least impossible or absurd about it. Mr. Hocart, who disclaims emphatically any intention of stating what the origin of religion may be, is of opinion that the oldest form of religion of which we know anything is the belief in the divine king. He wishes to trace the origin and development of this phenomenon, or group of phenomena, using methods akin to those followed by

\* That is in spite of the fact that the series representing those three races can be distinguished from one another.

\* Misprints are very rare. I have noted only U for T on p. 161 and iii for lii on p. 197, note 1.

Comparative Philology, and keeping in mind the existence of what biologists have to reckon with in their science, namely convergence. A good deal of what he says is already familiar to readers of MAN, having appeared in substance in recent issues. It would therefore be needless to recapitulate, even if space permitted, what he says concerning the King's Justice, the Polite Plural, and some other matters. It is enough to say that he derives, and for the most part very plausibly, from the one fruitful idea of divine kingship, such apparently diverse things as marriage ceremonies, installations of all manner of officials sacred and secular, round barrows, and creation-myths. It will be more profitable to ask whether the chief position held by Mr. Hocart is secured by cogent or plausible arguments.

For he commits himself, not only to the equation king = god, but likewise to the further one, king = sun, or sun-god. Moreover, the extension he claims for this belief includes a very wide territory, running not only from India to Fiji, but also taking in the classical civilisations of Greece, Rome, Babylon, and Egypt, to name no others. His doctrine clearly has connections with that of Mr. Perry and Dr. Elliot Smith, but is in no way identical with theirs, for it postulates no migration of races or even ruling clans, but simply the extension by borrowing of certain ideas. Distribution of a cult over a very wide and miscellaneous area, and likeness of custom, the result of diffusion from a common source, from Italy to Polynesia, are again nothing inconceivable; neither is early worship of the sun, or the use of the sun, or of a kind of magical double of the sun, for religious purposes. It is simply a question of evidence, and the evidence does not seem nearly sufficient.

Take, for instance, the connection between India and Fiji. The resemblance in ritual, as acutely analysed by Mr. Hocart, is very noticeable (see chapters VI and VII), and may be put among the many evidences for the far-reaching influence of India in very ancient times. But the proof that the Indian king was a sun-god rests on the Vedas, and on the Indian interpretation of them. For acceptance of this interpretation, Mr. Hocart pleads eloquently; but his own excellent parallels between Vedic and mediæval European hymnology and theology give his case away. These allusive, clearly comparatively late hymns, still more the yet later commentary on them, may doubtless preserve much that is ancient, but give us a picture of early Aryan belief as distorted as that which mediæval Catholicism gives of primitive

Christianity. The author does not seem aware that Sanskritists are themselves giving up the old solar or astral interpretation, which Sten Konow, for instance, in the last edition of *Chantepie de la Saussaye*, unhesitatingly rejects. So, while we may admit the connection between India and the Pacific, we have as yet no grounds for saying that the connecting link was a sun-king. If it be contended that it was at all events a king, it may be replied that Mr. Hocart has indeed shown (not for the first time) close similarities between the inauguration of a king and ceremonies intended to invest someone with a divine or priestly character; but he has shown no cause to suppose the royal ritual to be the primary one; it might equally well be thought that the *prius* was the belief that a man might become, or be assimilated to the nature of, a god, and that later it was believed that kings were especially appropriate persons to be so assimilated. In this connection the issue is clouded by a tendency which the reviewer deprecates, namely, a too great readiness to assume that a king with priestly functions is a divine king. It is not self-evident, indeed I think it disproved by the evidence, that such figures as the Roman *rex sacrorum* and *flamen Dialis*, for example, had anything divine about them. As regards the classical European areas it is unfortunate that Mr. Hocart, who does not here speak as an expert, has been several times misled by secondary authorities, not always well chosen,\* and therefore his conclusions are of far less value than when he speaks of Asiatic or Fijian matters.

For there is no denying that the most part of the book is, right or wrong, of very considerable value, because exceedingly suggestive. Readers of MAN are strongly advised to add it to their libraries, and to disagree at leisure with Mr. Hocart for themselves. H. J. R.

#### Africa, North: Sociology.

Maunier.

*La Construction collective de la Maison en Kabylie: Etude sur la* **132**  
*Coopération économique chez les Berbères du Djurjura.* Par R. Maunier. Travaux

\* For instance, on p. 36, *Fortuna Redux* is badly misunderstood; p. 64, the interpretation of *dominus* is exactly the reverse of the true one; p. 87, the Etruscan costume of the *triumphator* throws no light on Roman cult; p. 100, the Greek use of chaplets is quite misinterpreted; p. 139, the account of the Eleusinian mysteries includes much that has nothing to do with them; p. 161, Dölger has refuted the old interpretation of *lyōs*.

et Mémoires de l'Institut d'Ethnologie de l'Université de Paris. - III. Paris, 1926. 8vo. Pp. iv, 81, with 3 plates. 45 francs.

At first sight it is not obvious why a Professor in the Faculty of Law should write about Kabyle house-building. But the sub-title explains, and the memoir itself fully justifies this unusual procedure. Berber society has remained in many respects archaic; individual freedom, sex restrictions, family and tribal loyalties and responsibilities, and a political and economic citizenship, coexist and interact in ways superficially perplexing, but thoroughly logical when approached with the skilful and sympathetic handling here manifest. Most instructive is the emergence of a public life and social outlook on the part of individuals engaged in enterprises just too big for the strength and resources of the natural group to which they belong; and the delicate adjustment of the *ius suum cuique*, by provision for the maintenance and further recompense of helpers external to such a group. This sense of copartnership which brings, for example, the women of the village to shout encouragements to the men engaged in the more laborious tasks, is an element vital to the upbuilding and maintenance of societies in their early precarious beginnings, easily lost when self-consciousness and rationalism supervene, with profound social damages, and only partially and experimentally regained by our own maturer politics in their highest manifestations of solidarity.

Quite apart from its subject, and the conclusions to which its enquiries lead, this essay is notable as a model of rigorous method, systematic research, and skilful exposition. As a text book for an "informal class" in ethnology it should be most useful; all the more so, because the writer has been most careful to understate, throughout, the evidence for analogous observances elsewhere, even within the Mediterranean region. The larger questions of geographical distribution, and historical or prehistoric origins, fall indeed outside this immediate topic; but M. Maunier has to face the question whether stone-constructions and tile-roofing are "specifically Berber" (p. 19) or due to some foreign influence; for the answer to this question necessarily bears upon the interpretation of the social activities which contribute to house-construction. Not, however, for M. Maunier, in any vital point: "even if the Kabyle house is an importation, its shape and arrangement have only succeeded in maintaining themselves till now through its suitability to its purpose and its accommodation to local circum-

stances"; and similar habitations have a fairly wide range (far wider indeed than M. Maunier himself demonstrates), and accords with fairly well-defined conditions, economic and social: "question donc de richesse et de mode de vie"; of distribution, that is, rather than diffusion.

Appended to the memoir is a carefully drafted "questionnaire," to be commended to the revisers of our own *Anthropological Notes and Queries*; and a tabular presentation of the data collected with its aid. M. Maunier is to be congratulated on his numerous collaborators and informants, as well as on his admirable interpretation of their answers to his queries.

J. L. MYRES.

#### Religion.

Hasluck.

*Letters on Religion and Folklore.*

By the late F. W. Hasluck. Annotated by Mrs. Margaret M. Hasluck. London: Luzac & Co., 1926. Pp. xi, 256; 29 illustrations.

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The late Mr. Hasluck was formerly attached to the British School of Archaeology at Athens, but was compelled by ill-health to abandon his work. His enforced leisure he spent in reading widely and irregularly, and the letters reproduced in this book were written to his former chief, Professor R. M. Dawkins, as a running commentary on the books he was reading or writing.

Although more or less disconnected and unarranged, these letters provide a very interesting and curious miscellany of information about the folklore and superstitions of Southern Europe and the Near East. This range is perhaps best indicated by the words in which Mrs. Hasluck introduces the volume. "Besides discussing [early] Christianity," she says, "it includes notes on architecture, the revival by sophisticated literature of almost forgotten oral traditions, the influence of eikonography on folk-literature, the oriental character of much Balkan folklore, and the part played by Syria in disseminating both Christian and Mahommedan legends."

Of the many and variegated topics touched upon in this book we may perhaps single out as of special interest the references to miracles, the "transferences" of objects of cult and ideas from one religion to another, the attempt to identify St. George the Megalomartyr, the rival merits in public favour of the Christian Saints, the Holy Sepulchre, and the so-called "blood sacrifice" of the Jews—but it would be possible to continue indefinitely in this way, for the letters abound

in innumerable references to all sorts of superstitions and beliefs, relics and survivals.

It is in every way a delightful and valuable book, and Mrs. Hasluck has put students of comparative religion and

folklore under a great debt of obligation by making this collection and annotating it so very admirably. The illustrations appear to have been judiciously selected, but the index is not very satisfactory.

I. S.

## PROCEEDINGS OF SOCIETIES.

British Association.

Section H.  
Anthropology.

*Proceedings of Section H (Anthropology) at the Meeting of the British Association for the Advancement of Science, held at Leeds, August 31 to September 7, 1927.*

Section H (Anthropology) met in the Philosophical Hall, under the Presidency of PROFESSOR F. C. PARSONS, F.S.A., who had taken as the subject of his address "The Englishman of the Future," and deduced from a survey of physical characters of the inhabitants of the British Islands of the past and present the lines of modification which, in his view, the race was now undergoing. The address has been published in full in a pamphlet issued by the British Association containing the address of the President of the Association and the Sectional Presidents, and will appear in full in the Annual Report.

The number of communications submitted to the Section being somewhat smaller than usual, allowed more time for discussion, of which full advantage was taken. Only one organised discussion had been arranged. This was opened by DR. H. FRANKFORT and dealt with the early and prehistoric painted pottery of the Near and Middle East. The discussion was useful as a summary of the existing state of our knowledge of the distribution and possible origin of this important group of ceramics.

A meeting in the North of England near a number of centres at which excavations on Roman sites are being carried out seemed a favourable opportunity for a survey, partial it is true, of the present state of our knowledge of Roman Britain, and a number of papers dealt with this subject:—MR. R. G. COLLINGWOOD on Roman Signal Stations on the Yorkshire Coast; MR. S. N. MILLER on recent excavations in Roman York; and DR. FELIX OSWALD on recent excavations at Margidunum on the Fosse Way. MR. I. A. RICHMOND, who had promised to describe the important Roman camps at Cawthorn, was unfortunately unable to attend, and his paper was taken as read. DR. T. ASHBY also dealt with Roman research, although not in Britain, and, in describing the Roman roads in the Valley of the Tiber, added fresh material to that

contained in his Presidential Address to the Section two years ago.

The number of papers in physical anthropology was rather larger than usual. PROFESSOR T. H. BRYCE described a collection of human skeletons from the North of Scotland dating from the Viking period, some from Caithness and some from Orkney, which, judging from the grave goods, dated from about 1,000 A.D. DR. A. H. MUMFORD presented a valuable study of measurements and tests in relation to school progress from material extending over a long series of years, and PROFESSOR H. J. FLEURE and MISS FLEMING demonstrated a new type of anthropometric instrument. MR. ARTHUR DAVIES presented a study of the nasal index in relation to climate in Africa in continuation of the work of Professor Arthur Thomson and Mr. Dudley Buxton, and MR. E. G. BOWEN showed an interpretative map of Dr. Bryn's anthropological observations in mid-Norway, translating his records into the scheme adopted by Professor H. J. Fleure, an interesting result being the indication of an admixture of elements without marked Nordic characteristics in a great Nordic stronghold. MISS M. MCINNES, in an ethnological survey of Sheffield and surrounding district, came to the conclusion that Nordic types predominate throughout that area, while the darkest children are found in the poorest and most congested parts of the city. DR. R. A. FISHER, in presenting a report on the measurements and observations obtained by the Committee of the Association on triplet children from the King's Bounty Records at the age of 6½ years, while arriving at some interesting conclusions from the specific material dealt with, revealed the need of more comprehensive national data upon normal children. SIR WILLIAM BOYD DAWKINS carried further his study of the place of man in the Tertiary Period in relation to his origin and early distribution.

In prehistoric archaeology DR. A. C. HADDON presented a preliminary report by MR. L. S. B. LEAKEY and MR. B. H. NEWSAM on the excavations carried out by them in Kenya Colony, in which human skeletons and stone implements have been found in stratigraphical relation to deposits

of what are concluded to be pluvial periods, it being suggested that these periods may possibly be correlated with the glaciations of Western Europe. DR. L. AMI gave an account of the work of the Canadian School of Archaeology in France, and described recent discoveries by members of the School at Combe Capelle. The REV. H. A. DUKINFELD ASTLEY gave a general description of cup and ring marks with a view to the excursion of the Association which, it had been arranged, was to visit Ilkley at the week-end. MESSRS. E. K. TRATMAN and HERBERT TAYLOR described recent excavations carried out by the Spelæological Society of Bristol in the Mendips and the Wye Valley respectively. In the Mendips their research has shown an extensive occupation from palæolithic times onwards to the Romans; in describing the Wye Valley excavations a comparison was instituted between King Arthur's Cave and the Base and Lower Middle Zones of Mother Grundy's Parlour. DR. R. C. C. CLAY dealt with the overlap of the Bronze and Iron Ages, concluding from the results of recent excavations and the succession of pottery types in cinerary urns and domestic vessels, that in the south of Britain the Middle Bronze Age lasted up to the introduction of the knowledge of iron. MRS. M. E. CUNNINGTON described the excavations carried out by herself and Mr. Cunningham in the Parish of Durrington, Wilts., on the site which she has christened Woodhenge. These investigations have revealed a new type of prehistoric monuments, which consisted of a circle or circles composed of timber posts or uprights. The plan has certain analogies to Stonehenge and it was conjectured that it must have been designed for ceremonial purposes. PROFESSOR T. H. BRYCE, in a second paper, discussed the theory of archaic culture in relation to the prehistory of Scotland. A very interesting communication by MR. J. E. DANIEL, discussed the distribution of religious denominations in Wales in its relation to racial and social factors. He showed that the distribution of Anglicans and the Nonconformist sects coincided with the distribution of certain of the physical types to be found in Wales.

The number of ethnographical papers was small, and, unfortunately, Miss Blackman, who had undertaken to give an account of the modern Egyptian Medicine Man, was unable to be present, being detained in Egypt. DR. J. H. HUTTON presented a very important communication on the significance of head-hunting in Assam, which gave rise to some discussion. This it is hoped may shortly be presented to the Royal Anthropological Institute for further consideration.

DR. A. C. HADDON presented a remarkable collection of geometrical drawings from Malekula and Ambrym which had been collected by the late Mr. Deacon just before his lamented death. MR. CARLINE described the methods of primitive weaving with special reference to the collection of looms in the Bankfield Museum at Halifax. This was preparatory to a visit to the Bankfield Museum by members of the Section on the same day, when they were received by the Lord Mayor and Lady Mayoress, and entertained by the members of the Museum Committee.

*Edinburgh and Lothians Branch of the Royal Anthropological Institute.*

The following papers have been arranged for the first half of the Session of the Edinburgh branch of the Instituté. The meetings will be held in the rooms of the Scottish Geographical Society, Synod Hall, Castle Terrace, Edinburgh:—

*Tuesday, 4th October.*—SIR EVERARD F. IM THURN, K.C.M.G., K.B.E., C.B. (Hon. President of the Branch): "Notes on Games of Guiana Indians." (With Lantern.)

*Tuesday, 8th November.*—PROFESSOR G. BALDWIN BROWN, LL.D., F.B.A., on "Palæolithic Art." (With Lantern.)

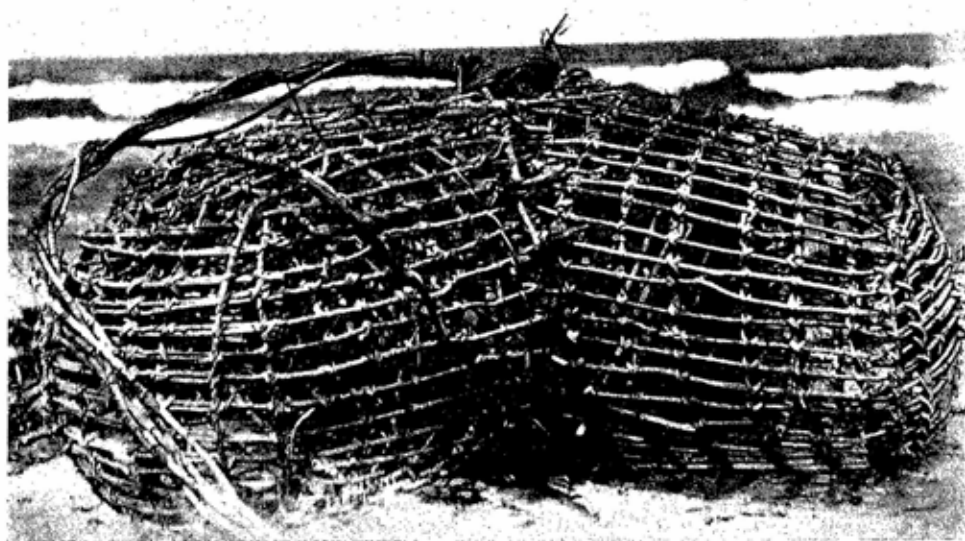
*Wednesday, 30th November.*—THE HON. SECRETARY will demonstrate on Recent Acquisitions in the Ethnographical Section of the Royal Scottish Museum, Chambers Street, at 3 p.m. This meeting will be held in the Small Lecture Room on the Ground Floor of the Administrative Block at the Museum.

*Tuesday, 13th December.*—PROFESSOR V. GORDON CHILDE, F.R.A.I., F.S.A. Scot., on "The Early History of the Horse's Bit." (With Lantern.)

*Institut International d'Anthropologie.*

The congress of the Institut International d'Anthropologie opened at Amsterdam on 20th September and continued until 27th September, the meeting being followed by a short tour through North Holland. Among the British anthropologists attending the meeting were MR. H. J. E. PEAKE, representing the British Government and the Royal Anthropological Institute; PROFESSOR G. ELLIOT SMITH, representing Australia; DR. J. H. HUTTON, representing India; MR. H. R. PALMER, representing the Gold Coast; and MR. F. TURVILLE PETRE, representing Palestine. PROFESSOR H. J. FLEURE also representing The Royal Anthropological Institute. MR. G. A. GARFITT, MISS D. GARROD and others also accompanied the delegates.





FISH-TRAPS OF LAKE TANGANYIKA.

## ORIGINAL ARTICLES.

## With Plate L.

## Africa, East : Technology.

Hatchell.

**Fish-traps of Lake Tanganyika.** By G. W. Hatchell. With Plate L. **135**

The accompanying illustration is that of a form of fish-trap used by the natives residing along the eastern shores of Lake Tanganyika for the capture of the fish known to them as Senga.

The fish runs to some 30 lbs. in weight and is probably of the barbel family. It is without scales and its skin is of a very dark blue-black colour. The flesh has the appearance of raw-beef. Considerable quantities of yellow fat are to be obtained from it.

The trap, which is constructed of wicker work, consists of three globes of about 4 feet or 4 feet 6 inches in diameter, joined together so as to form a central and perpendicular passage.

Entrances to the globes lead from this passage, which is closed at the top and open at the bottom. The entrances to the globes are of the usual fish-trap form, converging inwards to a narrow opening; easy of entrance but difficult of exit. The total diameter of the trap may be as much as 10 feet. Bait in the shape of grasses and weeds is placed in the bottom of each globe, and an easily opened and closed orifice is provided in the top of each globe for the purpose of extracting the catch.

The Senga lives deep and the trap is lowered to within a few feet of the bottom and there moored to a log or other form of buoy floating on the surface. One mooring rope, which was of liana, measured by the writer, was 94 paces. The trap may be left in this position for as long as three months, being visited periodically by the owner, who hauls it to the surface, spears and extracts the catch, and lowers it into position once more.

The fish enters the trap from the bottom through the central passage and thence into one or other of the globes, and, being unable to get out because of the inward converging entrance, is eventually brought to bag.

G. W. HATCHELL.

## Italy: Archæology.

Spranger.

**The Double Axe in Etruria.** By J. A. Spranger. **136**

The question whether there are evidences of a double-axe cult in Etruria is of importance not only in connection with the distribution of the cult itself in Mediterranean countries, but also as being, conceivably, one which might throw some light on the much-debated problem of Etruscan origins.

If the Etruscans originally came from the Ægean, we should expect to find the double axe making its appearance on Etruscan monuments and relics connected with ritual observances; but, although such positive evidence would strengthen considerably the theory of the Ægean origin of the Etruscans, the absence of such evidence could not be held to exclude it entirely, especially if the deficiency were found to be partial and not complete.

Even positive evidence in this direction, however, would not be conclusive since the cult might not have been brought by the Etruscans *ab initio*, but introduced subsequently in the course of the extended commercial relations of that enterprising nation.

Modern Italian archæologists tend to react from the opinion, often very firmly expressed, of the late Professor Milani (1), who supported whole-heartedly the legend of the Lydian origin of the Etruscan; as set forth by Herodotus (2). This reaction is apt to resolve itself into a policy of negation and the refusal to attempt to draw

any conclusions whatever from evidences held to form an insufficient basis for anything at all except further systematic excavations of Etruscan sites (3). Such excavations, although they are not being neglected (4), naturally cannot be prosecuted on a large scale at present by the Italian Government, which has to husband its resources for more vital national needs. There is, therefore, not much probability of the available material being increased to any very great extent in the next few years and unless we admit that this is, as a whole, insufficient for purposes of social and religious research (5), there is no great advantage to be gained by waiting for further material before attempting to reach some conclusions from the evidence already to hand.

Any conclusion must necessarily be of a provisional nature, to be altered or confirmed by subsequent discoveries, and this fact would still hold good even if the material available were twice or three times more abundant than it actually is. As it is, the amount of material is by no means vast, and what there is of it is so much scattered in museums and collections all the world over (6) that a thorough study of it would involve peregrinations beyond a student's usual powers—certainly far in excess of the present writer's. For this reason also any conclusion here reached must be tentative only: a more thorough examination of the existing relics themselves may always bring to light some interesting fact that has a bearing on the question and may modify the conclusion.

Nevertheless, a personal study of the Etruscan collections in the British Museum and in the museums of Florence, Bologna, Arezzo, Volterra and Cortona (7), as well as a visit to the site of Vetulonia (8), all undertaken with the special object of the present research in view, together with the perusal of other museum catalogues, of the extant "répertoires" and of the other literature pertaining to the subject may, perhaps not unreasonably, be held to form a first basis for our inquiry.

The double axe has been found in Etruria in many different forms: the vase-painting, cinerary urn relief, bronze mirror, votive offering, on coins both "aes grave" and minted, in tombs and on a grave-stele.

It may be as well to examine these several cases singly before drawing our—tentative—conclusions.

§ 1. *Vase paintings*.—The double axe occurs, as far as I know, on only two vases found in Etruria. These are two kylikes, one a red-figured cup from Volci, now in Berlin (9), and a very similar one in the Archaeological Museum at Florence (10).

The latter was discovered at Saturnia and judged by Milani to represent Zeus Labrandeus (11). Its similarity to the Volci kylix, however, even though on the Saturnia one the god is not actually holding the kantharos, is too great to allow us not to call the bearded figure Dionysus. In this case we must, therefore, with Professor Minto (12), interpret the double axe as "King Dionysos's ox-slaughtering servitor" (13).

Another vase, found at Cumæ, also shows Dionysos holding a double axe (14).

These vase paintings are, however, hardly sufficient to permit us to assume the existence in southern Etruria of a Zeus-Dionysos cult like that which Mr. Cook finds on Tenedos (15), but they certainly do not exclude it from the realms of possibility.

§ 2. *Reliefs on cinerary urns*.—As far as I have been able to ascertain, the complete double axe occurs on four Etruscan cinerary urns, two of which are preserved in the Guarnacci Museum at Volterra (16) and represent the discovery of Paris at the altar of Zeus Herkeios. Paris is wearing the Phrygian cap and near by stands Cassandra (17) bearing a double axe, while another woman is detaining her as she is in the act of lifting it against him.

Of the other two urns, one is at Chiusi (18) and one at Sarteano (19) and both represent the same scene as the preceding ones.

Four more similar urns are extant with the same scene in relief, but the double axe, or what may have been the double axe, is in these cases damaged, so that one cannot be absolutely certain that it was not originally meant for a "securis" whose spike has since broken off (20); but in view of the family likeness between these urns and the fact that no similar one is known with a battle-axe in place of the "bipennis," we may be practically sure that this is the instrument actually represented in every case. It is, moreover, inherently unlikely that a figure should be depicted brandishing a battle-axe with the spike end foremost.

The double axe in these scenes is evidently a sacrificial weapon, but of Asia Minor, where the scene of the relief is laid, and not necessarily of Etruria.

§ 3. *Bronze mirrors*.—There does not appear to be any specimen of the double axe on an Etruscan bronze mirror in any public museum: three examples, however, are quoted by Gerhard (21) and one is illustrated by him (22).

The scene represented is very similar to that of the discovery of Paris that we have noticed on Etruscan cinerary urns and may well be meant for the same subject: a man kneels on an altar while a female figure on the right threatens him with a double axe. Gerhard himself supposed the scene to represent the murder of Neoptolemus at Delphi (23).

The example illustrated by Gerhard hails from Volci (24), where, as we have already seen, the red-figured Dionysos-kylix was discovered (25).

§ 4. *Votive offerings*.—The small bronze double axes discovered at Delphi (26) have their parallel in Etruria in two small specimens found at Talamone (27), as well as a separate one (28) whose place of discovery is not given, but which, from its dimensions (it is 0.11 m. long), is evidently of votive character and is, in fact, described as such in the inventory of the Florence Archæological Museum, where all three are preserved.

The former two are part of a collection of similar small reproductions of weapons, all found in the same place in 1892 and apparently dedicated in memory of the battle of Telamon between the Celts and Romans in 225 B.C. (29). The double axes in question would, therefore, seem to be rather Gallic (30) than Etruscan, representing the weapons used by the Celts in the battle as opposed to the more effective "pilum" and "ligula" of the Roman infantry (31).

The separate votive axe did not apparently form part of the same group, but little can be deduced from it owing to the uncertainty as to its place of discovery. All that can be said is that double axes were probably sometimes used as votive objects in Etruria even apart from the special instance of the battle of Telamon.

§ 5. *Coins*.—The coins found in Etruria bearing a wheel on one side and a double axe on the other have been assigned to Cortona by Garrucci (32) and Milani (33). Other archæologists are inclined to different opinions (34), but all agree that the coins originate from the Arezzo-Cortona-Perugia area, and there is no doubt that the symbol on the obverse side is a double axe.

A. *Aes grave*.—Of large bronze coins bearing the double axe there are specimens in the Museo Nazionale at Rome (35) and the Archæological Museum at Florence (36), and there are stated to be some at Cortona (37). The series is well represented in the British Museum (38).

B. *Minted coinage*.—Minted coins bearing the double axe are to be seen in the Museo Nazionale in Rome (39) as well as in the Arezzo (40) and Florence museums. The British Museum also possesses specimens (41). Another, with axe-head of a slightly different shape from the preceding, is at Turin (42) and a similar one was seen by Garrucci at Paris in the possession of M. Hoffmann (43).

The ancient uncia of Vetulonia (44) in the Florence Archæological Museum, described by Falchi (45) as bearing "two semicircles" on the obverse, has been taken by Milani (46) as evidence that the double axe was the emblem of Vetulonia (47),

as he insists that the two semicircles represent a double axe (48). Examination of the actual coin (49) shows this interpretation to be improbable, though barely possible. On later coins of Vetulonia the symbol is abandoned altogether (50).

§ 6. *Tombs*.—In two cases iron double axes of fairly large size (51) have been discovered in Etruscan tombs, both near Vetulonia, one (52) in the ditch of the tumulus at Poggio Pepe (exc. 1900) and the other (53) in the well-known "Tomb of the Lictor" (exc. 1897) (54). I have been unable to discover traces of such axes having been found in any other Etruscan necropolis.

§ 7. *Grave-stele*.—The limestone stele, 1.06 m. high, in the Florence Archæological Museum that bears carved upon it (if we may trust Daniellson's reading) the name "Aules Feluskes" (55) stands by itself. It is not only the oldest figured and inscribed Etruscan monument known (56), but the only one that bears upon it an unmistakable double axe.

Milani unhesitatingly calls the warrior depicted on this block an "armed kouretes" (57) and speaks of the upright object between his feet as characteristic of the corybantic cult (58). It appeared to me that this symbol might well be interpreted as a cypress-tree (59), but Signorina Campanile, Ispettrice of the Florence Archæological Museum, described it as a spear-head (60).

In any case there is no doubt that the weapon in the warrior's right hand is a double axe.

This unique monument was discovered near Vetulonia, in a ruined and rifled circular tomb on Poggio alla Guardia. The warrior is depicted holding the double axe up in his right hand while he keeps his round shield close to his body with his left. The crested helmet on his head forms his only other means of defence. It is at least possible that in this design the double axe may enter merely as a weapon and in no way as a symbol, but the curious object between the man's feet does not seem so easy to interpret; and if we admit this to be some sort of symbol, the step is short to admitting the same of the uplifted axe.

§ 8. *Doubtful examples*.—There is a certain number of extant Etruscan relics that may, perhaps, represent double axes but that it might be going too far to describe definitely as such. Thus, when an axe has been fractured across or close to the haft-hole, it is not easy to tell whether it was originally a single or a double axe, other parts of it being missing.

Two objects in the Florence Archæological Museum, one a piece of iron (61), the other a piece of bronze (62), may have been meant for double axes.

The former is about 0.13 m. in length and much corroded, but shows a round mark of darker colour than the rest just about where the broken-off haft would have been. The latter, 0.15 m. long, is narrower and has a triple band ornament round the narrow waist. It is described in the Museum inventory as "an object shaped like a double axe."

These may have been votive objects.

§ 9. *Conclusions*.—We may conclude that the double axe was known in Etruria from the earliest Etruscan times (63) and that, at all events in the regions not far removed from the sea-board, the later Etruscans were not unaware of its value as a symbol of Dionysos (64) and as a weapon especially connected with sacrificial rites (65).

Its occurrence on coins found between Perugia and Arezzo (66) must be considered in the light of the fact that it never appears on these as the attribute of any figure, human or divine, represented on the coins, nor in connection with any other symbol beyond the plain marks of value and sometimes an initial as well. We may, perhaps, take it that it was here the equivalent on the coin of a more ancient form of means of exchange (67). The Umbrovillianovan single-edged axe was considered a thing of great value, even if only as a piece of bronze (68), and offered as a votive

object as such. It may have been used as an actual means of barter in the place of "aes rude" and the double axe may have been adopted subsequently to represent it on coins as being better suited to their round shape than the single-edged axe or paalstab. Moreover, as we have seen (69), the double axe itself was used for votive purposes.

That at Vetulonia, in the "circular tomb" period (70), the double axe had the value of an emblem of power is proved by the specimen, with iron "fasces" round the haft, that gives its name to the so-called "Tomb of the Lictor" (71), since the "fasces" render this less suitable for use as an actual weapon (72).

The other specimen, from the Poggio Pepe tumulus, may or may not have been furnished with "fasces," but its very occurrence in a neighbouring funerary precinct makes the analogy with the first inevitable.

It is at Vetulonia, therefore, that we find the best evidence of a symbolical or emblematical value attributed to the double axe.

Nowhere in Etruria do we find evidences of an axe-cult in the Cretan sense, but in this, as in other respects—and especially at Vetulonia—we may see, with Georg Karo, the influence of "Mycenæan" culture "on the ancestors of those bold peoples who brought to Central Italy a new life and a foreign art" (73).

J. A. SPRANGER.

#### NOTES.

- (1) L. A. Milani: "Italici ed Etruschi," Rome, 1909.
- (2) Herodotus, I, 24.
- (3) Aldo Neppi Modona, "Cortona Etrusca e Romana," Florence, 1925, p. 171.
- (4) See "Fervore di attività Etrusca," by A. N. Modona, in *Illustrazione Toscana*, February, 1927, p. 20.
- (5) Professor Luigi Pareti, who is preparing a monumental work in three volumes on Etruscan origins, evidently considers that it is not.
- (6) List in Milani, "Museo Archeologico di Firenze," Florence, 1912, Vol. I, pp. 23-30.
- (7) The Museum of the Accademia Etrusca and the private collection of Contessa Giulia Tommasi-Baldelli; the latter very kindly shown to me by the gracious owner herself.
- (8) Including the collection of antiquities in the charge of Don Arturo Palla (Hon. Govt. Inspector of Antiquities for Vetulonia) and the private collection of Sig. Emanuele Stefani most courteously shown to me by himself. The latter also informed me that the collection of his brother-in-law, Sig. Rutilio Renzetti, which he (Sig. Stefani) knew well—and which I was unable to examine—did not contain any double axe in any form.
- (9) Illustrated and discussed by A. B. Cook, "Zeus," Vol. I, Cambridge, 1914, p. 216 (Fig. 159).
- (10) No. 81600, Case XIII, Gallery XII, 1st floor. Illustrated by A. Minto, "Dionysos, ὡς ἐκαλεῖτο πέλεκος," in "Atene e Roma," 1923, Nos. 1, 2, 3, with photographs.
- (11) *Op. cit.*, p. 152.
- (12) A. Minto, *l.c.*
- (13) Simonides, Fig. 172, "Bergk. ap. Athen." 456 C-E. Discussed in Cook, *op. cit.*, Vol. II, Cambridge, 1925, p. 659.
- (14) Illustrated by Cook, *op. cit.*, Vol. II, p. 661 (Fig. 600).
- (15) *Op. cit.*, Vol. II, p. 662, *sq.*
- (16) (a) No. 384 (= E. Brunn: "I rilievi delle Urne Etrusche," Rome, 1870, Vol. I, pl. xi, n. 24). (b) No. 239 (= Brunn, *op. cit.*, pl. xii, n. 26).
- (17) Thus Schlie (*ap. Brunn, op. cit.*, p. 15). Brunn also adds other evidence in support of this attribution.
- (18) In the Palazzo Vescovili: Brunn, *op. cit.*, pl. xvi, n. 33, and p. 19: "Cassandra . . . vibra la bipenne."
- (19) Palazzo Bargagli: Brunn, *op. cit.*, pl. xvi, n. 34 and p. 20.
- (20) (a) Volterra, n. 227: Brunn, *op. cit.*, pl. xiii, n. 28. (b) Volterra, n. 232: Brunn, *op. cit.*, pl. x, n. 23. (c) Volterra, n. 236: Brunn, *op. cit.*, pl. xii, n. 25. (d) Florence, n. 68 (Inventory, n. 5742), quoted by Brunn as n. 87: Brunn, *op. cit.*, pl. xiii, n. 27. In the Florence urn the axe has been restored.
- (21) "Etruskische Spiegel," Berlin, 1839. Vol. I, p. 86, with note n. 115; also Vol. III, p. 231.
- (22) *Op. cit.*, Vol. I, pl. xxi, n. 1.

- (23) *Op. cit.*, Vol. I, p. 87.
- (24) *Op. cit.*, Vol. I, p. 86: "ein Werk volcentischer Abkunft."
- (25) § 1, above.
- (26) P. Perdrizet: "Fouilles de Delphes," v. 2, 119 ff., Figs. 438-445, quoted by Cook, *op. cit.*, Vol. II, p. 629, Figs. 534, a-d.
- (27) Florence Archaeological Museum, Nos. 10691 and 10692, Case VII, Room XVII, Ground Floor. O. Montelius: "La civilisation primitive en Italie depuis l'introduction des métaux," Stockholm, 1904. Series B, pl. 205, nos. 12 and 21.
- (28) Florence Archaeological Museum, n. 2610, Case V, Room X, 1st Floor.
- (29) L. A. Milani: "Due Ripostigli Telamonesi, in *Studi e Materiali di Archeologia e Numismatica*," Florence, 1899-1901, p. 135, Fig. 25 and p. 136, Fig. 26.
- (30) See J. Déchelette: "Manuel d'Archéologie préhistorique," Paris, 1910: ii, I, 254.
- (31) Polybius, II, 33.
- (32) R. Garrucci: "Monete dell'Italia Antica," Rome, 1885: parte I, "Monete fuse," p. 27 and pl. lii.
- (33) L. A. Milani: "Museo Topografico dell'Etruria," Florence-Rome, 1898, p. 55; and "Mus. Arch. di Firenze," Vol. I, p. 51.
- (34) e.g., Marchi and Tessieri, who assign the coins to Perugia (*ap. Modona*: "Cortona, Etr. e Rom.," p. 165).
- (35) From the Museo Kircheriano: Garrucci, *l.c.*
- (36) Inferior photographs of the semis and quadrans in Modona, *op. cit.*, pl. xxv, n. 7 and 8, who states (p. 162, n. 2) that Häberlin and his collaborators (who give reproductions of coins of this series in "Aes Grave," Frankfurt, 1910, p. 87, n. 1-7, etc.) "have invented specimens that do not exist."
- (37) By Modona, *op. cit.*, p. 164, n. 5. I did not myself see any double axes on coins at Cortona, and Mancini ("Cortona," Bergamo, 1909, pp. 20 and 21) does not speak of any in the Cortona Museum (Museo dell'Accademia Etrusca). The coins referred to by Modona may be in private collections at Cortona.
- (38) British Museum Catalogue of Greek Coins: Italy, London, 1873, p. 18.
- (39) Garrucci, *op. cit.*, parte II, "Monete Coniate," p. 59 and pl. lxxvi, n. 11-19 (from the Museo Kircheriano), n. 11-14 (uncia) and 15-16 ( $\frac{1}{2}$ -uncia?) with plain axe-head; n. 17-19 with hafted axe.
- (40) Eleven with plain axe-head and three with haft.
- (41) B.M. Cat., *l.c.* In February, 1927, I examined in the British Museum collection eighteen small coins with plain axe-head and five with haft.
- (42) Garrucci, *op. cit.*, pl. lxxvi, n. 22.
- (43) *Op. cit.*, p. 59.
- (44) T. Falchi: "Vetulonia e la sua Necropoli antichissima," Florence, 1891, p. 225 and pl. xix, n. 3.
- (45) *L.c.*
- (46) L. A. Milani: "Mus. Arch. di Firenze," Vol. I, p. 43.
- (47) L. A. Milani: "Mus. Top. dell'Etr.," p. 55.
- (48) "Mus. Arch. di Firenze," Vol. I, p. 40, Fig. 3.
- (49) Professor A. Minto very kindly presented me with a cast of this coin with permission to publish photographic reproductions thereof, but owing to the corroded condition of the original it is more than doubtful whether a photograph of the cast—or even of the original itself—would do anything but confuse the issue.
- (50) *Op. cit.*, pp. 42, 43, Figs. 4, 5, 6.
- (51) Respectively about 0.25 m. and 0.27 m. long from edge to edge.
- (52) Florence Archaeological Museum, n. 8623, Case G, Room III, Gd. Floor.
- (53) Florence Arch. Mus., Case D, Room III, Gd. Floor: Montelius, *op. cit.*, series B, pl. 194: Milani, "Mus. Top. dell'Etr.," p. 38: photograph in Milani, "Mus. Arch. di Firenze," Vol. II, pl. lxxvi.
- (54) Falchi in "Notizie degli Scavi," 1898, p. 1341, *sq.*
- (55) Drawing last published in R. McIver, "Villanovans and Early Etruscans," Oxford, 1924, p. 125, Fig. 36. Drawing also reproduced by Montelius, *op. cit.*, series B, pl. 189, n. 11 (scale 1:10) and Milani, "Mus. Arch. di Firenze," Vol. II, p. 14. Photograph in Milani, *op. cit.*, Vol. II, pl. lxxviii. See also Milani, "Italic ed Etruschi," p. 19 and pl. xvii.
- (56) 9th or 10th cent. B.C.: Milani, "Mus. Arch. di Firenze," Vol. I, p. 219.
- (57) *Op. cit.*, p. 41.
- (58) *Op. cit.*, p. 15, Vol. II.
- (59) Compare the Lydian coins in Brit. Mus. Cat. Coins, Lydia, p. 162, pl. 17, 10 and pp. lxxvi, 164, n. 15. Also the incomplete Etruscan limestone grave-stele in the Volterra

Museum in which an unmistakeable plant is shown between the feet of the personages depicted on the stele.

- (60) In conversation with the writer in August, 1926.
- (61) R. corner of lowest shelf, Case III, Room XV (Suvanenses).
- (62) N. 888, Case VI, Room X, 1st Floor.
- (63) Stele of Aules Feluskes, § 7 above.
- (64) Kylikes from Volci and Saturnia, § 1 above.
- (65) Cinerary urns from Volterra, etc., § 2 above, and bronze mirrors, § 3 above.
- (66) § 5 above.
- (67) Professor W. Ridgeway and A. B. Cook in Cook, *op. cit.*, Vol. II, p. 655, n. 1.
- (68) P. Ducati, "Museo Civico di Bologna," Bologna, 1923, p. 160.
- (69) § 4 above.
- (70) About 7th cent. B.C. : L. Pernier : art. "Vetulonia" in "I° Convegno Nazionale Etrusco," Florence, 1926, p. 93.
- (71) § 6 above.
- (72) Moreover, see Cook, *op. cit.*, No. II, p. 633.
- (73) "Tombe Arcaiche di Cuma," in *Bull. di Paletn. Ital.*, XXX, p. 4 (1904).

## Britain: Archæology.

Gray.

### Bronze Celt from Staple Fitzpaine, in Taunton Castle Museum.

137

By H. St. George Gray.

This implement was described and illustrated in MAN, 1904, 5, when it was thought to be composed almost entirely of copper. The late George Coffey included this celt in his short list of copper celts found in England, and he felt confident, from the appearance of the metal, and from the type, that it belonged to the copper series.\*

In May last Mr. H. J. E. Peake expressed a wish that I should get the implement analysed, and he suggested that Professor Cecil H. Desch, of the Department of Applied Science, University of Sheffield, would probably be willing to examine the material in detail. He kindly consented, and the result of the analysis (dated 7th July, 1927) is as follows:—

	Per cent.
Copper - - - - -	92·46
Tin - - - - -	6·94
Lead - - - - -	0·07
Nickel - - - - -	trace
Arsenic - - - - -	trace
Iron - - - - -	nil
Silica - - - - -	0·21
	<hr/> 99·68 <hr/>

Professor Desch adds: "The silica is merely derived from the soil. The axe is, therefore, an exceptionally pure tin bronze, and not copper. It is very sound, and the texture is rather like that of copper. The low percentage of "impurities is very interesting."

It is to be hoped that other doubtful copper celts found in England and listed by Coffey and others will be analysed, and that the information may be recorded in the card index of bronze implements preserved at Burlington House.

In 1904 the weight of the celt was recorded as 8½ oz. avoirdupois. More correctly, the weight should be given as 238 grammes (obtained before the celt was drilled for analysis), or 8·395 oz. avoirdupois. H. ST. GEORGE GRAY.

\* *Journ Anthropol. Inst.*, XXXI, 278.

## Melanesia: Technology.

Chinnery.

**The Blow-gun in New Britain.** By E. W. Pearson Chinnery.

138

The blow-gun, *ubul*, and dart, *omol* (figured), are used by the people of Geglip Island, Moewe Harbour, on the south coast of New Britain, and by certain bush



FIG. 1.—THE METHOD OF FITTING TUBES TO GIVE LENGTH TO THE GUN.

tribes inland from Moewe Harbour. According to my informant, it is used for shooting birds, which come in great numbers to the low timber on the coast during the north-west season *u-i* (October to April). Men skilled in its use can blow the dart into the heights of the tallest trees. Young men about to accompany bird-shooting expeditions for the first time are given to eat a preparation of down from the eye region of birds, stuffed into ginger "so that they shall use the gun with skill." The length of blow-

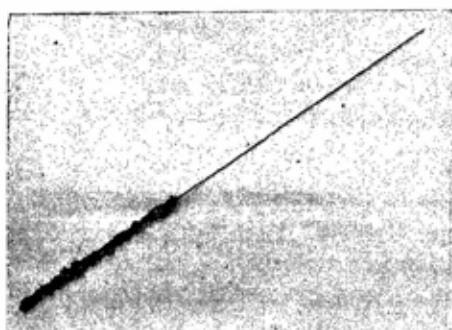


FIG. 2.—THE DART.

guns varies. This one is 590 cm. It consists of eight hard bamboo-like reeds,\* hollow, and smooth inside and outside; these are fitted into one another as in Fig. 1 and the joints are firmly laced with vine '*atil*' and covered with a black glue-like substance. The diameter of the mouthpiece is 1.6 cm.; circumference, 5.5 cm., while at the other end the diameter and circumference are 1.7 cm. and 5.6 cm. respectively. The dart is a slender piece of hard palm, planed smooth and tapering gradually to a point. It is 100 cm. in length, and the thick end for 39 cm. is wrapped with light, fluffy, parrots' feathers. The dart is inserted into the mouthpiece of the gun, a deep breath is taken, and the dart is discharged by blowing sharply into the tube.



FIG. 3.—GEGLIP BOY SHOWING HOW THE GUN IS USED.

E. W. PEARSON CHINNERY.

## Africa: Linguistics.

Crabtree.

**Tobacco.** By the Rev. W. A. Crabtree.

139

The names under which tobacco is known to the Bantu native of Africa fall into three groups. The Portuguese *folha*, a leaf, or *fumo*, smoke, have been adapted in some twenty-eight instances. There is a list in Johnston's "Comparative Study," Vol. II, p. 400, and they call for no special mention philologically. A little lower

\* The reeds are said to grow in one place only—Augura—on the coast near Geglip Island.

down on the same page will be found a second group, obviously connected with the Mexican *tabaco*. Some twenty of these take the form *taba*: eight of them contract *ta-ako*, *tako*; and a few others keep the full form *tabaco*. There is an interesting subdivision which adopts the peculiar form *tumbako*, with slight variations, such as *kumbaku*. This form arises from Persian *tumbaku*, Turkish *tumbeki*, tobacco prepared for hubble-bubble smoking. Persian influence on the East African Coast dates from at least the beginning of the eighth century; hence *tumbako* is the Swahili word for tobacco.

The association of tobacco with a water-pipe may be important as suggesting the origin of the third group. Probably little or no tobacco-smoking is so done to-day in Africa: hemp-smoking, however, is, I believe, pretty general, and for this a water-pipe is essential. When did this custom begin in Africa? Is it possible that nearly half the Bantu African words for tobacco are derived from an ancient word for "hemp," and not from anything whatever relating to tobacco?

"Hemp" is really Dutch *hennep*; A.S. *hoenep*; Lat. *cannabis*—all from Sanskrit *goni*. The seed and flower-bearing kinds of hemp are mentioned in an ancient Chinese herbal, "part of which was written about the 5th century B.C., while the "remainder is of still earlier date." ("Enc. Brit." s.v. hemp, Vol. 13, 264 b, c). Hemp as a drug is prepared in three forms—*bhang*, consisting of coarse leaves; *ganja* or *gunja*, being mostly flowering and fruiting heads; and *charas* or *churus*, the resin itself. Turning to Johnston's list, I find *bagi* twice, that is *bangi*, "*bhang*"; with variants *vagi*, *base* and *bangu*. Cf. *Ila lu-bange*, hemp for smoking; Kr. *mbanje*. Further, some thirty examples are grouped under a form *ficanga* or *kwanga*. By a well-known phonetic law in Bantu, these stand for *funga* and *kunga* respectively. Further, it is common phonetics in Africa to change *ku* into *fu* by labialisation. Hence all this group of thirty or more words is based upon an original *kunga*, which may well represent the *gunja* (in the London market *guaza*) of the Indian bazaars. A few other words, like *kaya*, *kanya*, seem to be the same word *ganja*, *gunja*. Any word in Bantu such as *kanga* is liable to be pronounced *kaga*, then *kaya*, by individual tribes. There is also a little group of eight words, of the form *sona* or *hona*, which recalls the Sanskrit *sana*, an alternative to the widely adopted Sanskrit *goni*, hemp. Passing over a dozen or so miscellaneous words not easy to trace, let us finally note Zu. *igwai*, tobacco (*i* is prefix; *gwai*, *gwawi*, might be compared with Ganda *omu-gwabi*, a water-pipe). Its basic form is *go-i*, and the most natural letter to supply would be "l," *goli*. To this may correspond three instances in Johnston, viz. *gobi*, *kondi*, *konde*. It is not uncommon in Bantu to find "l" and "b" interchanging; whilst the change from "l" to "nd" is a very common one, its purpose being slightly to lengthen the preceding vowel and so give it more prominence and incidentally a slightly different pitch. We thus have Zu. *igwai*\* referable to *goli*, that is Sanskrit *goni*. I would, therefore, suggest that, roughly, one half of the names for "tobacco" in Bantu Africa are really "hemp." Was hemp-smoking in Bantu Africa a very old custom? Can we expect that tobacco was substituted for hemp in the water-pipe? And, finally, following Portuguese example (if not Portuguese, whose?), water-smoking of tobacco was abandoned in favour of the pipe.

W. A. CRABTREE.

Africa, East: Religion.

Huntingford.

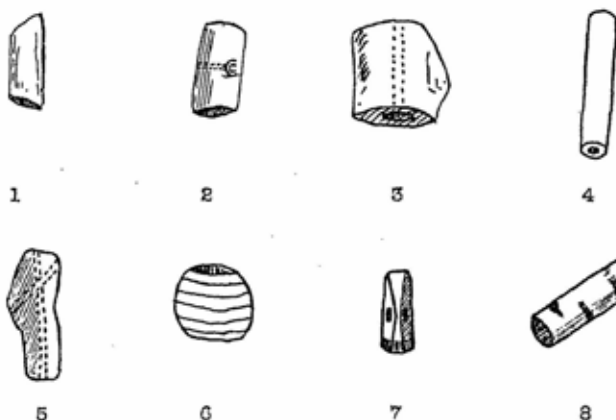
**Notes on Charms Worn by Nandi Women.** By G. W. B. Huntingford. 140

The following charms are worn by Nandi women fastened to their necklaces; they are called *kerichek che kiinde kâtít*, "medicines which are put on the neck."

\* Cf. Ganda, *enjai*, hemp; for ? *en-jabi*. Yao, *camba*, hemp; but J 151, *jaba*, tobacco; J 37, *ngambo*; J 51, *ingambo*.

## I. Charms against disease:

(1) A piece of the Indakariat tree (*Acanthus arboreus*). *Si ma-nam-in tomimiriet nepo chepioset ne tinye koroita, amu ko-'ur lakwet ne mii moiēt*, "that the shadow of a woman who has 'disease' may not fall upon you, because it would be bad for the child which is in the womb." *Koroita* means any kind of disease, as well as referring specifically to venereal disease. (Fig. 1, 1.)

FIG. 1.—CHARMS (*kerichek*) WORN BY NANDI WOMEN. (All  $\frac{1}{2}$ .)

(2) A piece of [the Momonuet tree, *Po takanet*, "of (= against) syphilis." (Fig. 1, 2.)

(3) *Mandāwet ap sosiot*, "parasite of the makindu palm (*Phoenix reclinata*)."  
*Ko-pun chepioset ne tinye koroita patet ap chepioset, ma-nam-in koroita; amu mīre piich*. "If a woman who has 'disease' comes behind another woman, she will not take the disease; because she casts a shadow on people (which is bad)." (Fig. 1, 3.)

(4) A piece of the Tangarotuet tree (*Aloe Schweinfurthii*). *Ketit ap purasta*, "the medicine against 'purasta'". *Purasta* is defined by Hollis as "dropsy"; it also refers to enlarged spleen and anthrax. (Fig. 1, 4.)

(5) *Mandāwet ap mesuot*, "parasite of the Mesuot tree." *Si mako-'nam' chiito kâpimperuk; itinye, ma-nam-in*, "that a person may not catch chicken-pox; if you have it [i.e., this charm] it will not take hold of you." (Fig. 1, 5.)

## II. Other charms:

(6) *Ketit ap dawayat*, "the medicine of the 'dawayat', a tree that grows in the emotinuk of Soiin (south and south-east) and Chesume (west). *Indoi chepioset si ma-ke-sakut-i*, "a woman puts this on that she may not have the evil eye cast upon her." (Fig. 1, 6.)

(7) *Mandāwet ap lapotuet*, "parasite of the Lapotuet plant (*Solanum campylanthum* or 'Sodom apple')." *Itinye chereret kitegin, iinde kâtit si makosakuti chii lakwet*, "if you have a little baby, you put this on that the child may be safe from the evil eye." (Fig. 1, 7.)

(8) *Kepepchet am motonda*, "vulture's feather." *Si ma-ko-'ur motonda chepioset ak tomimirien-nyi*, "that a vulture may not cast his shadow over a woman"; the vulture being regarded from its habits as an unclean bird. Cf., the curse, *am-in-motony*, "may a vulture eat you." (Fig. 1, 8.)

G. W. B. HUNTINGFORD.

## REVIEWS.

Anthropology, Physical.

Wallace.

*Variations in the Form of the Jaws*. By J. Sim Wallace, M.D., D.Sc., L.D.S., Lecturer on Preventive Dentistry, King's College Hospital. (London: Baillière, Tindall & Cox.) 1927. Pp. 265. Figs. 84. Price 17s. 6d.

There are signs, of which this book is one, that the human face is to come by its

own again in the estimation of anthropologists. Camper and his compeers in the latter part of the 18th century sought to utilise the face as a means for the discrimination of human races, but all their endeavours were brought to an untimely end by the success which attended the introduction of the cephalic index by Retzius in 1842 as a simple and reliable

means of separating mankind into natural races. Far be it from me to belittle the measuring of the greatest width of a head or skull and comparing it with the greatest length. By such means we do obtain a mathematical expression of a point in which one race of mankind differs from another. The fact remains, however, that individuals from two totally distinct races of mankind will yield the same cephalic indices. For the finer discrimination of races, particularly of prehistoric races, where a decision has to be based on bared bones, it seems now probable that we shall have to rely more and more on facial characters—if by good fortune the skeletal basis of the face happens to be preserved. At present we are using methods which are too crude to bring out and express the precise manner in which races differ in form of face. We have to found such methods on a full knowledge of how the human face grows and the exact part which each structure of the face plays in the physiology of the whole. Therein lies the value of this work by Dr. Sim Wallace: it deals with the growth of the face and the part which the muscles of mastication play in its development. He approaches the problems of the face as a dental surgeon, but he is too much a man of science to confine his attention to their purely professional aspect.

He gives new data; the exact measurements made on the growing jaws of his son from infancy to full adult years are valuable, but it is rather to his observations, to his opinions and to his experience that his work, which was deservedly awarded the Cartwright Prize, owes its chief attraction. Were full justice to be done to his book this review would have to make too serious an inroad on the space available in this journal. Suffice it to say that the author has given a full and fair statement of the observations and opinions of those who differ from him as well as of those who agree with him—with perhaps one exception. We think the long, exact and important investigations carried out by Dr. May Mellanby on the influence of dietetic substances on the growth of jaws and teeth deserved more specific mention and consideration.

Dr. Sim Wallace is prepared to give the action of hormones a place amongst the factors which regulate growth, but, as may be seen from the following passage, taken from p. 229, it is a very subsidiary one. There he states: "Characteristics resulting from the action of hormones are hereditary, but, in truth, when it is said that certain peculiarities result from the action of hormones, little more information is given than when it is said

"that they result from determinants or 'heredity.'" There is truth in this, but it is a relative truth. Some years ago it was the fashion amongst medical men to explain what they did not understand by saying it was "congenital"; the difficulty was shelved by pushing it back to a more remote origin—to something which happened in embryonic life and for which, therefore, medical men could not be held responsible. Dr. Sim Wallace is inclined to resort to similar methods for the explanation of appearances which can be called "hereditary." Heredity used in such a manner is really no explanation, but only a limbo into which biologists and anthropologists place unexplained things. This is not true of the theory of hormonal action in growth.

That certain glands of the body form substances which influence and modify the growth of the face is a matter which is supported by much and exact evidence.

ARTHUR KEITH.

#### Psychology.

#### Diserens.

*The Influence of Music on Behaviour.* By Charles M. Diserens. 142  
Princeton University Press. Pp. 224.  
1926. Price, 11s. 6d. net.

The use of words in a special significance, wider or narrower than the accepted connotation, is permissible to any author so long as he defines the meaning which he desires to convey. We have no quarrel therefore with Professor Diserens when he interprets "music," as he says, "rather broadly, so as to include:

"(a) Sounds not musical *per se*, but occurring in simple rhythmic order, e.g., the beating of drums, etc.

"(b) Musical sounds in harmonious sequence.

"(c) The same in different keys, of varying complexity, but combined in accordance with harmony."

On page 102 he analyses the elements of music as rhythm, tone, melody and harmony, and taking this in conjunction with his first definition we must conclude that in his view, as in ours, music must consist of a sequence of sounds, simple or complex, arranged in rhythmic order. Nevertheless we find that isolated tones, intervals and chords are casuistically included in the term "musical stimuli," which on page 126 is substituted for "music." And, though it is incumbent on an investigator into the influence of music on behaviour at least to be clear in his own mind what he means by music, Professor Diserens fails us in this respect, and appears to be unfamiliar even with the technicalities of music.

Professor Diserens approaches his task from two angles: the first by an inquiry on sociological lines, and the second by the method of laboratory experiments. His experimental work need not detain us long, as he is himself forced to conclude that "whether music affects organisms and what or how great these effects are are not questions susceptible of solution in the laboratory alone." "Most of these experiments," he admits, "yielded purely negative or doubtful results," and we are only interested in noting that there are no constantly significant reactions discoverable and that the experiments do no more than demonstrate a diversity of cardiovascular reactions to auditory stimuli.

Turning to the sociological approach, we are confronted with certain preconceptions which seriously vitiate the argument. These are in part attributable to the author's blind adherence to Professor Lévy-Bruhl's theories of prelogical mentality and participation, and in part to the nature of the anthropological evidence on which he relies. Of 21 purely descriptive works to which reference is made, 14 were published in the last century.

Acceptance of the theory of a prelogical mentality has led Professor Diserens to so many remarkable assertions that it is necessary to illustrate his point of view by direct quotation. "The entire mental life of the primitive," he writes, "consists of feelings and sentiments rather than ideas . . . The result is that the mental functions of inferior races differ materially from our own and employ a logic incomprehensible to us." He quotes with approval from Stanley Hall that "good music faintly awakens the echoes of the ancestral experience of the race," and goes on to add "thus music in reviving racial experience has something in common with psychoanalysis which attempts to evoke the remoter aspects of individual experience; and if benefit follows the latter through release from repressions, analogous racial repressions are perhaps eliminated to advantage by the former." Shades of Durkheim! Again, "magic rests upon the principle of omnipotence of thought, a principle common to savages, children and paranoiacs"—a hoary *cliché* which study of recent anthropological literature should surely have dispelled. And so on and so on. Numbers of other examples might be quoted, but these suffice to indicate the author's point of view, and we are not, therefore, surprised when he rejects Professor Combarieu's theory of the evolution of music merely on the ground that it assumes theory and logicality on the part of primitive man, or

when he disposes of the English view of animatism and animism with the remark that it "presupposes an act of inference on the part of the primitive."

His chapter on the influence of music on work is based on another *cliché*, equally unjustified, summed up in Professor Ferrero's terse and inaccurate phrase "Paresse et sauvagerie sont synonymes." "Savages," he writes, "are incapable of the power of instantaneous muscular exertion possessed by educated man," and he even denies to the primitive any technique in his economic pursuits. Consequently task songs are confused with magical songs, and the fact that songs are not transferable from one type of work to another is used to infer a magical content, whereas in many cases it is the actual technique of the particular occupation which conditions the song and prevents it being employed on other work.

An introductory chapter summarises adequately enough the various hypotheses of the origin of music; but even here we find hasty generalisations such as that originally music may have been regarded as a male prerogative.

The most important chapters, however, are four and six, Music in Magic and the Influence of Music on Work, and in the former we find a behaviouristic classification, largely based on Leuba's work, distinguishing the magical, the religious and the scientific. This is probably the best thing in a book which contributes little that is new to science and may not unjustly be regarded as a miscellany of popular prejudices and scientific preconceptions, the conclusion of the whole matter being that musical stimuli have certain undoubted reactions, though neither sociological evidence nor experimental data can yet determine the extent or nature of these reactions or the precise processes involved. J. H. D.

Sweden: Anthropology,  
Physical.

Lundborg:  
Linders.

*The Racial Characters of the Swedish Nation. Anthropologia Suecica MCMXXVI.* With the collaboration of the Staff of the Institute and other Scientists. Edited by H. Lundborg, M.D., Professor and Director, and F. J. Linders, Ph.D., Docent and Vice-Director. The Swedish State Institute for Race Biology: Uppsala. 1926. Pp. 182 + 96. 44 plates.

The Swedish State Institute for Race Biology was founded at Uppsala in 1921 for the purpose of investigating problems connected with "heredity research (gene-

"tics) and experimental biology; anthropology; psychiatry and other branches of medicine; genealogy, and statistics." It was intended, in the familiar words of Sir Francis Galton, to promote "the study of agencies under social control, that may improve or impair the racial qualities of future generations, either physically or mentally," but the word *eugenics* does not figure in its charter or reports. The directors of the Institute chose as their first task a comprehensive anthropometric survey of the country, as an accurate knowledge of its racial constitution would clearly be needed before many other problems could be solved. The results of that survey are detailed in this monumental volume. The material consisted of 47,387 conscripts between the ages of 20 and 22, comprising about half the total male population for that age group. Geographically and socially the sample might be considered a random one, but the unfit and men below a certain height are excluded from it. The data recorded and dealt with in this volume are the social class of the individual, his birthplace, weight, hair and eye colours, stature, and 10 other direct body measurements (furnishing four indices), and ten direct head measurements (furnishing six indices). A few of the measurements, including those of the ears and nose, were only recorded for far smaller numbers than the total. It is surprising to find that the definitions are compressed into two pages. The writers comment frequently on the fact that the data provided by previous workers are often found to be not comparable because the method of technique used was either unusual or undefined, but they have omitted to give any adequate definitions of their own measurements. That strange oversight is a grave defect of this work. The statistical material was reduced by using the Hollerith system of punched cards. The means and standard-deviations (together with their probable errors) and coefficients of variation (without probable errors) of each character are given for 25 smaller territorial divisions and four larger ones as well as for the country as a whole. The foreign-born are treated as a group apart. Distributions are given in an appendix for the same divisions. Numerous coefficients of correlation were calculated and there are 28 maps illustrating the distributions of the means. The greater part of this prodigious undertaking is confined to the study of Swedish material, and such questions as the relations of the anthropometric characters to social status and urban and rural conditions are discussed fully. Comparison is also made with data provided for neighbouring

countries. Prefixed to the report are several short essays by leading Swedish authorities on such cognate subjects as the pre-history, geography and demography of the country and the anthropological history and present condition of Western Europe. There are 44 plates in which excellent photographs of a large number of individuals are reproduced. This book will form an outstanding landmark in European anthropology and it would be invidious to attempt to summarise in a few lines the results and conclusions of so much labour. The English reader may wonder how long it will be before such work is undertaken in this country.

G. M. MORANT.

#### Archæology: Religion.

Harris.

*Woodbrooke Essays*, Nos. 1, 2, 4, 5. By Rendel Harris. Cambridge: 144 Heffer & Sons, 1927.

No. 1. *Traces of Ancient Egypt in the Mediterranean*. 23 pp. 2s.

The seal, now absent from the Mediterranean, was found there at least in the Homeric age ("Odyssey," IV, 405, XV, 480). Harpoon-using seal-fishers, probably Egyptian, pursued the seals from one breeding-ground to another—at the mouths of the Nile and the Rhone, at the entrances to narrow seas—and ended by hunting them right out of the Mediterranean to the Biscay coast. Three series of place-names bear witness to their activities: Phocussa (*phokē*, "seal") on the Alexandrian coast, Phocusa in the Cyclades, Phocaea at the entrance to the Gulf of Smyrna, Phocis on the Gulf of Corinth; Messene and Messenia, with Prote on its west coast, Messina (a Messenian colony), from the Egyptian *mesentiu*, "harpooners"; and Tegenussa, (S)togonussa, and finally, Tagus, from the Egyptian *thys*, "sealskin."

No. 2. *What was the Afikoman?* 13 pp. 2s.

In the modern Passover meal, a portion of a Passover cake, hidden somewhere in the room, is hunted for, found and ceremonially eaten. Dr. Rendel Harris sees in this evidence for the influence of the Egyptian mysteries on the Jewish rite: the hidden bread is the broken, scattered, recovered Osiris. Not satisfied with Eisler's suggestion that the Afikoman is the *'aphikomenos*, the Departed Messiah who is to return, he suggests an underlying Hebrew phrase *Hapi-qum* ("O Nile, rise") or an Egyptian *Hapi-qementu* ("Hapi is found"), Osiris being admittedly identified with the Nile.

No. 4. *The Comb in Human History*. 9 pp. Figures. 1s.

The author notes, in a collection of bone combs from Libyan graves at Neqada and Ballas (Middle Egypt) the predominance of combs with five "teeth" or rather "fingers." Comparing these with the marks made by a five-fingered comb on early bronze-age pottery from Court-Saint Etienne; bone combs made in the form of a hand and wrist, with ten and eleven fingers, from Cilurnum on the Roman Wall; and a weaver's (?) comb with ten teeth from the Orkneys—he concludes that the primitive comb is an imitation of the human hand.

It may then be conjectured that the prime use of a comb is to scratch the head rather than to arrange the hair: the Elizabethan "back-scratcher" in hand form suggests itself as a parallel. The Hopi weaver's comb, when used to "range the warp" as well as to press down the weft, is also very probably a substitute for the fingers; in belt weaving this work is often done with the actual fingers.

No. 5. *Jesus and Osiris*. 30 pp. 2s.

This is a discussion of Egyptian influences on the Fourth Gospel and the possibility of an Osirian document underlying the recovered "Sayings of Jesus." The story of the Raising of Lazarus is re-interpreted as a ritual Mourning for Osiris.

BARBARA AITKEN.

Malay Peninsula:  
Ethnography.

Schebesta.

*Bei den Urwaldzwerge von* 145  
*Malaya*. By Paul Schebesta. Leipzig: F. A. Brockhaus, 1927. Pp. 279. 150 illustrations and 1 map.

This is a very readable and interesting account of Father P. Schebesta's intensive study of the Negritos of the Malay Peninsula, as good a piece of ethnographical field work as has been done within the last few years. For many months he lived in their camps, shared their life, and studied their language, customs and

beliefs. He seems to have succeeded in winning the confidence of these extremely shy and primitive people, and to have established close contact with them. Incidentally, he crossed and re-crossed the trackless main mountain range of the Peninsula in company with some of them, and in the course of this and other journeys he visited a large number of their scattered and shifting camps. His researches were not confined to one single tribe, but included more than half a dozen distinct groups, speaking different languages or dialects, the most northern being in Lower Siam about lat. 7° N. and the southernmost in Central Pahang about lat. 4° N.

The hardships involved in such an undertaking are best appreciated by those who have themselves had experience of dank equatorial forests; but though they seriously damaged his health, the author makes little of them. He gives us instead a cheery, popular, narrative, with many a touch of humour to enliven its pages, and throwing much new light on his subject. His scientific material, anthropological, linguistic, etc., will no doubt take some time to work out, and will be separately published, as will also be his account of the other, non-Negrito, wild tribes of the Peninsula. An English version of the work under review would be very welcome, especially in the Malay Peninsula itself, where German is not widely read. Some rather eccentric spellings of Malay words (due perhaps in certain cases to local peculiarities of pronunciation) have slightly shocked my pedantic soul, particularly as the author was my pupil for a few weeks. Nothing much turns upon them, but it would be well to amend them in an English edition for local readers. The numerous illustrations are nearly all from the author's own photographs and are extremely good. The map shows the author's journeys, and the approximate boundaries of the various wild tribes, the position of their camps, etc.

C. O. BLAGDEN.

## CORRESPONDENCE.

Ethnology.

Chinnery.

**The Children of the Sun.**

*To the Editor of MAN.*

SIR,—Sir J. H. P. Murray (MAN, 146  
1926, 70) questions statements made by Mr. W. J. Perry ("The Children of the Sun") in connection with the distribution of certain objects in New Guinea, and Mr. Perry in reply (MAN, 1926, 151) states that he relied almost entirely on a paper published by me in *J.R.A.I.*, 919.

This paper, "Stonework and Goldfields in New Guinea," enumerates and describes certain objects that have been found in Papua and New Guinea, the origin and use of which are not known to existing peoples; it discusses the distribution of these objects, and offers certain suggestions to account for their presence. A map at the end of the paper shows their geographical position, and a Table attached to the map outlines various phenomena associated with the districts in which they

are found, and the people who now live in them—information which appeared to me to have some bearing on the subject under discussion.

I am sending a copy of the paper to Sir J. H. P. Murray, and I shall be pleased to discuss further any questions that may be raised in connection with the objects and their distribution.

In the meantime, since Mr. Perry has practically referred Sir J. H. P. Murray to my paper, it might clear up a certain amount of confusion if I take the questions one by one and indicate their bearing on the subject as it is discussed in "Stone-work and Goldfields."

(b) My subject is "ancient objects." To my knowledge none had been discovered in the Trobriand Islands, therefore that place does not appear in my paper.

(c) My subject is "ancient objects." I do not even mention polished stone implements or any other objects made and used by the existing races.

(d) The answer to this question is found in the Table at the end of the paper.

The fact that no old workings are "known to exist" at the present time is not to be taken as evidence that earlier people did not work for gold in these districts. If the goldfields at present being worked by Europeans in New Guinea were abandoned to-day, what indications would there be in a few hundred years time of the activity that at present exists on, say, the alluvial goldfield at Bulolo River, New Guinea, where 300 Europeans and 3,000 native labourers are engaged?

(e) The Table at the end of the paper outlines the methods of irrigation employed in the various districts in which objects have been found. Authorities for my statements are quoted in the text. The Table also indicates features other than gold, etc., that appear to have some bearing on the ancient objects and their distribution.

Probably the confusion would not have arisen had Mr. Perry reproduced my map, together with the Table explaining it.

Yours faithfully,

E. W. P. CHINNERY.

Rabaul, Territory of  
New Guinea.

*To the Editor of MAN.*

SIR,—In the July number of MAN 147 (81), Dr. Hutton has added another item to the growing list of criticisms of "The Children of the Sun." His criticism differs from those of his predecessors in that he makes some attempt to consider

general principles, though from the point of view of Assam alone.

I propose to begin with the criticisms of detail, and then to go on to the consideration of the major points of principle that have been raised by Dr. Hutton.

I am obliged for the corrections of the Mao Naga, as well as of the confusion between the two Colonel Shakespears. These I have included in my new edition.

Dr. Hutton challenges my statement that some of the Nagas of Assam claim descent from "Naga" rulers of Manipur. He says that he does not know that any Naga tribes claim descent from rulers, and certainly not from a "Naga" family. He imputes to me a confusion between the Naga tribe and the "Naga" (cobra) family of rulers of Dravidian India. I have never made that mistake, and have often had to correct it in others. But Dr. Hutton will find confirmation of my statement on p. 121. The evidence, as I read it, is to the effect that the Naga, Kuki and Manipuri claim a common ancestry in the person of Pakhangba, the mythical snake ancestor of the Manipuri royal family.

Dr. Hutton states that the railways of Assam have never been used in connection with iron and gold, but with tea. This suggests the possibility that the relationship between railways and mineral resources is indirect, and that the railways were made in the more settled districts, the localisation of which perhaps originally depended upon the presence of iron and gold.

The remarks made by my critic with regard to the megalithic monuments of Assam suggest a definite modification in my general theory concerning their distribution. I would suggest that secondary movements take place from areas of primary settlement, and that, while the use of metal was dropped in the course of such movements, the practice of erecting megalithic monuments may have persisted. This seems to have happened in Assam, as in Melanesia and elsewhere. It in no way invalidates the original thesis, of which the settlement in the Khasia Hills is a case in point.

I fail to see the difficulty concerning the connection between polished stone implements and iron. The people of the archaic civilisation certainly used iron in India, in addition to making polished stone implements. The use of iron soon caused the polished stone implements to disappear, as I have explained on p. 97.

I now come to the major points, the dual organisation and warfare. Dr. Hutton is not easy to follow in his arguments concerning the mode of origin of the dual

organisation in Assam. In the first place, he says that he "cannot for a moment admit that purely territorial divisions of tribes into two groups have any significance beyond the geographical one." But he does not make it perfectly clear what he means by the term "geographical." He immediately faces in another direction, and states that "there does seem to be material evidence for the supposition that it is the result of an admixture of races following invasion and conquest." This does not seem to fit on with the "geographical" theory just enunciated. Nor is the situation made any clearer by Dr. Hutton's description of the Ao Naga village, in which there are two groups living side by side, which surely is not to be explained on the "geographical" hypothesis. Having thus got the question into a condition of confusion, Dr. Hutton proceeds to give an excellent series of instances of dual offices in Naga villages. He explains these dualities in the following manner: "I suggest, then, that, given a belief in the duality of Nature and in the necessity of conforming to that duality in order to obtain prosperity, the growth of some form of dual system on society is extremely probable, if not inevitable." This seems to suggest that, given the idea of duality, the people that possess it will proceed to institute dual chiefs and so forth. Dr. Hutton seems to beg the question in making this assumption, for the thing that matters is, of course, the idea of duality. But a subsequent remark of his shows that he is aware of the possibility of diffusion. "This, of course, takes us no further than the question as to whence originated the idea that duality is inherent in Nature and must be observed in social life, so that society is modelled on the relation of the sexes. Perhaps, in view of the propinquity of China, where the idea that nature and the universe in general is based on and pervaded by duality is very strongly held, one may reasonably assume that the source of it, at any rate, is the same for the Naga Hills as for China." With that last statement I agree. The source certainly is the same, but I should like to know what has become of the previous assertions concerning the territorial duality and the mixture of peoples. Dr. Hutton has put up three, if not four, different interpretations of the dual organisation: that it is geographical; that it is the result of mixture; that it is the result of the principle of duality; that it may have come from elsewhere. I leave it to him to clear up this tangle of theories. Dr. Hutton cannot have it all ways. But he seems in one place to wish to. For he

says: "I do not, of course, suggest that this [the duality theory] is the only way in which a dual system may arise, as it is a commonplace that identical results may spring from entirely different origins." An example, if you please Dr. Hutton, of the working of this process. I know that it is a commonplace of anthropological speculation, but let us have a real instance of it. The fact remains, after all that Dr. Hutton has said, that the duality of territory, of villages, and of offices all belong to the same system, and have been propagated together. This has been shown in "The Children of the Sun." Moreover, these dual institutions can only be witnessed in a process of decay anywhere but in the country of origin. Dr. Hutton has no logical right to consider the different elements piecemeal. His action in so doing has led him into the logical *impasse* that we have just witnessed.

Dr. Hutton's arguments on warfare deserve some comment. He has caught me out in a slight misstatement. I have said that warfare in Indonesia is confined to head-hunting and its consequences. I had the East Indian Archipelago in my mind when I wrote that sentence. Warfare in Assam, as in Oceania generally, is also bound up with the hostility between the two sides of the dual organisation, and that, together with head-hunting, fairly well accounts for it. Dr. Hutton, on the other hand, rests his case on the speculations of Carveth Read, and postulates a primitive "hunting pack," a sort of pack of wolves, I suppose. This is brought in to explain the quarrels between different Naga villages over agricultural boundaries.

Dr. Hutton mentions the "bitter feuds and hostility" that characterise the relations in Naga villages with their dual institutions. I suggest to him that, since he says that the Semas possess this form of hostility, the struggle between two Sema villages that he mentions may have been the outcome of this attitude of mind, rather than to the pressure of population or the hunting-pack behaviour that he puts forward as a cause of warfare among the Nagas. I propose before long to deal exhaustively with the topic of warfare and so shall not discuss the matter here at length. But I might state that I adhere still more firmly than ever to my contention that warfare is an organised form of behaviour, and is not "natural" to mankind. It does not seem to me to matter what the psychologists say. If the facts are against them, so much the worse for the psychologists. And the facts are against them in overwhelming multitudes.

Yours faithfully,

W. J. PERRY.



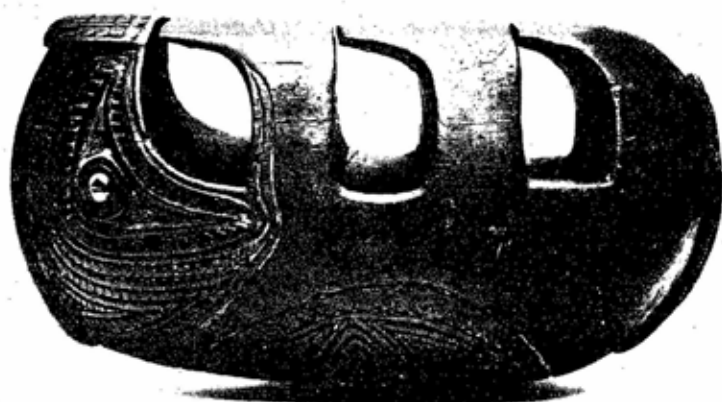


FIG. 1.—WOODEN MUSICAL INSTRUMENT FROM NEW IRELAND. LENGTH, 18.5".



FIG. 2.—(SIDE VIEW.)



FIG. 3.—(FACE VIEW.)

WOODEN FIGURE FROM NEW IRELAND. HEIGHT, 26".

(By kind permission of the Trustees of the British Museum.)

## ORIGINAL ARTICLES.

With Plate M.

New Ireland: Ethnography.

Braunholtz.

**An Ancestral Figure from New Ireland.** By H. J. Braunholtz, M.A.**148**

With Plate M.

The wooden figure illustrated in the accompanying Plate M, Figs. 2 and 3, acquired recently by the British Museum, belongs to a class of carvings from New Ireland whose outward appearance has long been familiar to ethnologists both from Museum specimens\* and the sumptuous publications of the Dresden Ethnographical Museum.† Our somewhat meagre information as to their meaning and use has recently been considerably increased by the publications of Professor A. Krämer‡ and of P. G. Peekel, M.S.C.,§ although much of their intricate symbolism still remains to be explained. This particular figure is, unfortunately, unaccompanied by any history or particulars of origin, and it would hardly have deserved publication except for one very unusual feature. I refer to the object appearing between the individual's legs, which clearly represents the three-note "friction-gong," called *livika*, peculiar to New Ireland, a fine and characteristic specimen of which, also in the British Museum, is shown in Plate M, Fig. 1. To this instrument I shall refer again later.

No other example of a figure carving with a *livika* has been recorded hitherto, I believe, and Professor Krämer, whom I consulted, kindly informs me that it is new to him also. A few other figures of musicians are, however, known; one playing the pan-pipes is in the British Museum, and two more, playing the conch-shell trumpet and pan-pipes respectively, are illustrated by Krämer,|| who describes them as rain-makers.

The distribution of wooden funerary carvings in New Ireland is confined to the "Central" and "Northern Districts" and the intervening area, including the "Hamba district," as defined by Krämer¶; i.e., they are not found South of about 3° 30' south lat. The style of the carvings, as well as the ceremonies at which they are erected in honour of ancestors, differs as between the Central and more Northern districts. Their region of highest artistic development appears to be the "Hamba District," with the outlying Gardner Islands; here the figures are called *Malanggan* (or *Malagan* further north, at Lamaket), a word whose meaning is also extended to include the ceremonies connected with them. On grounds of style we may assign our figure with some confidence to the "Hamba District," although in some of its features, e.g., the head-crest and the upraised position of the arms, it recalls the *Uli* figures of the "Central District." But the pinnate "crests" on the

\* An exceptionally fine collection of New Ireland carvings is exhibited in the Linden Museum at Stuttgart.

† *Publicationen aus dem Königlichen Ethnographischen Museum zu Dresden.* Bd. X (1895).

A. B. Meyer and R. Parkinson; Bd. XIII (1900). W. Foy.

‡ A. Krämer. "Die Malanggane von Tombára." München, 1925. (100 Plates).

§ G. Peekel. "Die Ahnenbilder von Nord-Neu-Mecklenburg," in *Anthropos*. Bd. XXI (1926) and XXII (1927).

|| *Op. cit.* Pl. 51.

¶ *Op. cit.*, p. 17. Krämer recognises 12 linguistic and cultural divisions. His "Hamba District" includes the Gardner Islands (Simberi, Tatáu and Tabár) and about 12 miles of the East Coast opposite (i.e., south-west of) these islands, from Hamba to Tandis village. The "Central District" extends for about 40 miles to the south-east of the "Hamba District." The "Northern District" extends over some 40 miles from Cape Sass to the North Cape at the tip of the Island, and includes part of New Hanover.

ears (probably representing conventional feathers),\* the "ribs," and the curious pointed "apron," which resembles the conventional fins of some of the fish carvings, all seem to be characteristic of the Hamba and more northern districts.†

The *malanggan* are classified by Peekel‡ into "historical" and "mythological" groups, the "historical" group being further subdivided into "personal" and "impersonal" (or "symbolical") figures. The personal figures actually represent known ancestors, and their attributes indicate something by which these ancestors were distinguished in their life-time. An example is quoted of a famous shark-catcher being represented with the apparatus for catching and killing sharks. In Vol. X, Plate XVII, Fig. 3 of the Dresden Museum Publications we may presumably recognise such a figure depicted with a shark caught in the noose. On this analogy, I think it is not beyond the limits of reasonable conjecture to regard our figure as the portrait of a distinguished performer on the *livika*. This is borne out by the position of the musical instrument, gripped as it is between the man's legs in the actual way in which it was held by the player.

It has occurred to me, as a possible alternative explanation, that since the *livika* represents a hornbill or some other bird, it might in this instance be regarded as symbolical of the man's totem. Whether such symbolism is consonant with the native mentality of the region I am hardly in a position to decide. One might even go further and classify the figure as a moon-god,§ one of whose emblems, according to Peekel, is the hornbill. Another moon emblem is the serpent, and if we might recognise the bandolier-like object across the figure's right shoulder as a conventionalised serpent, this conjecture would receive additional support. Nevertheless I should prefer the simpler explanation.

A note on the "friction-gong"|| or *livika* (Pl. M, Fig. 1) may, perhaps, not be out of place here, since the publications in which it is described are probably not readily accessible to many readers of MAN.

Its manufacture is at present confined to a few inland villages in the Lelet mountains of the Central district, but it has in its use a wider distribution, being found as a borrowed culture element in the Hamba district also. It was, I think, first described by Parkinson,¶ who gives the native name as *nunut* and likens the sound of it to the braying of an ass. Krämer supplies a much more detailed account.\*\* According to this authority it is named *livika*, *lapka*, or *lunuat* in different districts; (*lunuat*, according to Peekel). *Livika*, derived from *vika*, "a bird," is, however, the name given to it at its centre of dispersion. The natives are themselves uncertain which bird it represents; Krämer prefers to regard it as a hornbill on account of the carved head, though its notes, in a certain order, more nearly resemble the call of a female *eclectus* parrot. Its general appearance seems to me rather suggestive of a pig on its back, but this resemblance is probably accidental. It is played by a man at the ancestral ceremonies in a specially constructed bird-shaped hut (figured by Krämer); the sound represents the voice of the spirits of the dead and is said, like the bullroarer elsewhere, to serve to frighten women away from the ceremony. The player grips the instrument between his legs and produces the notes by drawing both his hands, previously smeared with resin, in rapid succession across the keys from the head end. A shrill broken chord of three ascending

\* Cf. Krämer. *Op. cit.*, Pl. 87.

† Cf. Krämer. *Op. cit.*, Pl. 47, 48, 56, 57, and *Publ. Dresd. Mus.*, Vol. X, Pl. XIV, 1.

‡ *Anthropos*. Vol. XXII, p. 17ff.

§ Peekel identifies a number of Krämer's figures as "moon-gods."

|| Classified by Montaudon as an "idiophone par pincement." *Arch. Suisses d'Anthrop. générale*, Tome III, 1 (1919).

¶ R. Parkinson. "Dreissig Jahre in der Südsee" (Stuttgart, 1907), p. 282, fig. 43.

\*\* *Op. cit.*, p. 56ff, and Pl. 14. Cf. also E. Krämer-Bannow, "Bei Kunstsinnigen Kannibalen der Südsee" (Berlin), 1916, p. 279.

notes is the result. The actual notes of the specimen illustrated are : approximately BD#F# ("New" Philharmonic pitch : A = 439 vibrations at temperature of 68° F.).

DESCRIPTION OF PLATE M, FIGS. 2 AND 3.

I append a brief description to supplement the illustrations of the figure. It is carved out of a single piece of pale light wood (*Alstonia villosa*?). It appears to have been sawn off at the base, which is smooth and flat, and may therefore in its original state have been only the upper portion of a larger carving. The right arm is missing, and the head-crest damaged at its serrated edges. It is painted in the usual style—red, white and black; the face is red on the left side and black, with three large red spots, on the right; the central column of the body is red; the "ribs," red, white and black, and the musical instrument black, bordered with red and marked with white spots. The crown of the head and lower part of the face are plastered with a resinous material; in this are embedded the remnants of seeds, from which spring stems of coarse fibre representing the man's hair and beard. A few small conical shells are also affixed to the left temporal region. The eyes consist of the usual operculum of the *turbo* shell, inlaid. The fingers are painted alternately red and black. The Plate shows the attitude, etc., sufficiently clearly to render further description unnecessary.

H. J. BRAUNHOLTZ.

Britain : Archæology.

Vulliamy.

**A Bronze Age Cup from Wales.** By C. E. Vulliamy, F.R.G.S.

149

I have had occasion, more than once, to draw attention to the remarkable group of three tumuli at Ffostill, in Breconshire. It may be remembered that



these tumuli are situated on a foot-hill below the Black Mountains, at a height of 1015 to 1020 feet O.D., on land belonging to the farmstead of Ffostill, near Talgarth. Two of them are long barrows of transitional type, with megalithic passage-graves. The axis of the north barrow points 67° east of true north, and the axis of the south barrow 21° east of north. Both barrows are, roughly, from 110 to 115 feet in length, with a maximum width of 75 feet. They are unusually broad in relation to their length. The human



skeletal remains which I found in these barrows in 1921-22-23 are those of typical Neolithic people, of both sexes and of various ages. At the time of my excavations I was unable to form an opinion as to the age of the third barrow—a small burial mound of sub-circular plan, some 28 feet in diameter, standing 30 yards to the north-east of the north barrow.

The cup, which is here reproduced, is in the collection of Mr. A. F. Gwynne, of Glasbury, through whose courtesy I have been enabled to examine it and to take the photograph. It was found in the round barrow at Ffostill, but in circumstances which are, unfortunately, somewhat obscure: there is, indeed, no intelligent account of the actual discovery, which is thus, like too many others, deprived of all scientific value. Mr. Gwynne has ascertained that it was picked up by a farm labourer during the removal of stones from the barrow. In publishing this—one of the most beautiful examples of its type which have been placed on record, and certainly the finest known specimen

of Bronze Age ceramic found in Wales—I am, therefore, restricted to a description of the vessel itself.

The cup is made of a compact, rather impure, but tolerably homogeneous paste. It appears to have been carefully and evenly fired in manufacture, and its colour was originally a light brick red. It has been cracked and fissured externally, particularly at the base, through contact with a deposit of glowing embers or hot ashes. The contents of the cup, whatever they may have been, have protected its interior from the action of the funerary fires, though in one place hot or burning matter has evidently trickled over the brim.

The height of the cup is 5.6 cm. Its greatest diameter is 7.4 cm., and the diameter at the base is 4 cm. It measures 7 cm. across the brim, and has a thickness varying from 1.3 to 1.7 cm. The weight is 0.175 kilogrammes. The decorative theme is well displayed in the photograph, both on the side and on the sloping brim. A keen-edged implement, producing V-shaped grooves, has been used for incising the design, which is deeply and firmly engraved. An error of judgment on the part of the engraver led to the sudden compression of his design at the finish, and two of the chevrons are tightly squeezed together. On the base of the cup, badly cracked by heat, is a simple quartered pattern, divided by a cross, but with no peripheral line.

The notable features of this example are (a) its unusual thickness, (b) the firmness, beauty and vigour of the decoration, and (c) its relatively symmetrical form. The finding of such a vessel in the round barrow at Ffostill leads one to the conclusion that this barrow must have been raised at a period very much later than that of the long barrows.

Quantities of calcined fragments of bone, white and extremely friable, were found in this barrow, together with charcoal and some unworked pieces of flint.

C. E. VULLIAMY.

## Sociology.

Hocart.

### Are Savages Custom-bound? *By A. M. Hocart.*

150

Savages are commonly supposed to be the slaves of custom to a far greater degree than the White Man, who by contrast appears as the child of reason. This view has so often been repeated as to be mistaken for a fact. It is high time it were challenged, as it stands in the way of the quest for origins by placing the savage and the White Man in watertight compartments, and thus forbidding us to make use of the one in order to understand the other.

If there is one thing a long residence in the Pacific and daily intercourse with the people, especially children, has impressed upon me, it is the thinness of their customary life as compared with the extraordinary complexity and pervasiveness of ours. You could never describe all our customs in one volume, or even in two, but you can theirs. If we think the savage is a greater slave of custom than we are it is because we see the mote in the other man's eye, but not the beam in ours.

I once had an argument with a chief in Rotuma on the subject. I said to him: "You Rotumans think that we have little etiquette. On the contrary, we have far more than you, but you do not notice it; and one reason is we learn it at a much earlier age than you and so it comes quite natural and it is hardly seen. Now I will give you a demonstration: I will make this boy eat in European style." I made the boy, aged about twelve, sit at a table with knife and fork. "No," I said, "don't stick out your elbows; don't fill your mouth," and so on, and in a very short time he was reduced to tears and declared that he had sooner not eat than eat that way.

It is a rooted idea among Fijians that it is no use teaching children because they are watery-souled. I explained to my friend Salesi that we started as babies and the result was that our complicated customs became quite easy to us, and involved

no hardship. "I see," he said. "We see the White children how quiet they keep, and we pity them. Now I understand."

The fact that savages begin to learn late makes it impossible for them to learn much. When I had to teach Fijian boys I soon discovered that the first thing to do was to teach them their own customs, of which their ignorance was phenomenal. In their natural state the less intelligent never learnt things which we would think it impossible not to learn. There actually were adults who did not know correctly the kava ceremonial, although it was an almost nightly occurrence. I was present once when a leading nobleman, aged about eighty, put all his side to shame at a potlatch by wording the acknowledgment of the gifts as if he were the giver, a mistake which was against common sense as well as custom, and one which I should certainly not have made.

One result of learning late is that their etiquette is not quite so much a second nature as ours. In Fiji it is certainly the creation of nature's gentlemen, but it lacks the subtlety of ours, it is very obvious and conscious. Ours is so elusive that Asiatics commonly fail to seize it, and usually do not rise above a caricature.

Another result is that they remember having learnt and therefore when you ask them why they do a thing they say quite honestly, "Because our fathers taught us so," or, "Because it is the custom of our country." These answers are quoted as proof that they are entirely ruled by custom, and not like us by reason; but the truth is that they do not deceive themselves quite as much as we do. We learn so early that we forget having learnt, and think reason is our prompter. Besides, our minds are more active and curious of causes, without always having the leisure or patience to go in search of them; so if any one asks "Why have you got a second chamber?" we do not answer, "Because our fathers had three estates, and two of them sat together in Parliament;" but, "Because we need a check on a popularly elected chamber." A savage will probably tell you he washes the body of the dead because it is the custom; but a White Man will probably say, "Why, that is only common decency," and a White Woman will reject with indignation Dr. A. M. Blackman's suggestion that we do it because ancient man helped the deceased to be reborn by pouring over the body the vivifying waters.

Man is distinguished from the animals by his capacity for handing on to his posterity what he has acquired in his lifetime. The White Man is distinguished above others by his greater development of that capacity, by the tremendous burden of custom he is able to bear without hardly being aware of it. It is our blindness in trying to impose the same burden on the other races that is everywhere stirring up revolt against the White Man and his ways.

A. M. HOCART.

#### Africa, East: Sociology.

Baker.

**Age-Grades in Musoma District, Tanganyika Territory.** By **151**  
E. C. Baker.

Though incomplete, the following notes on the age-grades as they recently existed in Musoma, Tanganyika Territory, may be of interest.

The district is bounded on the north by the Kenya-Tanganyika boundary and on the west by Lake Victoria-Nyanza. The tribes inhabiting this area were, prior to the occupation of the country by the Germans, nominally governed by councils of elders, but were, in the majority of cases, under the dictatorship of the war-doctors, wizards and rain-makers, whose orders were enforced by the age-grades.

Circumcision was always the mode of entry into the age-grade, and, so far as I am aware, no other ceremony was ever connected with it, with the exception of the *kisassi* custom of the Bakuria.

The most highly evolved system was to be found amongst the Waikoma of the Ikoma area, who are Wasonjo, and were driven from their country either by famine or by the encroaching Wamasai.

Amongst them the age-grades were twelve in number, and were divided into three groups. The first age-grade of each group ruled for eight years, and, on the expiration of this period, was driven out by the succeeding grade. On these occasions armed fights occurred, but, though casualties were common, the affray appears to have been a formality, and public opinion would have prevented the outgoing age extending the duration of its rule, even if it had been stronger than the incoming one.

When each of the first grades of the three groups had ruled, the sons of the first grade came into power, and were in due course succeeded by the sons of the second, and then by those of the third, after which the grandsons of the three first grades each ruled in turn. These were succeeded by the great-grandsons of the original grades, which completed the cycle, and when their terms of office were completed their sons succeeded them and took the names of the three original grades.

The names of the age-grades were as follows, the numerals showing the order in which they ruled :—

<i>Group A.</i>	<i>Group B.</i>	<i>Group C.</i>
1. Baramarancha	2. Bakihocha	3. Bakung'uta
4. Bakubura	5. Bakinao	6. Baramate
7. Bakamata	8. Bamera	9. Bamatar
10. Bamasura	11. Wasai	12. Bangarete
1. Baramarancha	2. Bakiho:ha	3. Bakung'uta

Each age-grade ruled for eight years, and so the cycle, which is continuous, is completed in ninety-six years, when No. 12, the Bangarete, have ruled.

According to the Waikoma the Baramarancha have been in power three times, and the rule of the Bakinao would have terminated in 1926 had the system of age-grades, or *sega*, not given way to that of government by chiefs. According to this computation, which is admittedly unreliable, the *sega* first ruled just over two hundred years ago.

The neighbouring Wangruimi, who also state that they are Wasonjo, though their clan names indicate an affinity with the Bakuria rather than the Waikoma, used the same system of age-grades, and dissension became so rife that the tribe began to settle in accordance with the *sega* rather than in clans. Besides everlastingly bickering with their neighbours the grades were in the habit of collecting all the unmarried girls of their *sega* and going into the bush at night. On these occasions promiscuous intercourse took place and saturnalia ensued.

Professor Seligman has pointed out to me the similarity of this system of age-grades to that in vogue amongst the Wagalla, where the age-grades are divided

into ten *gādā*, and each *gādā* is in power for eight years, thus giving a cycle of eighty years.\*

Amongst the Bakuria there is nothing to correspond to the three age-groups of the Waikoma. Each generation, or *saro*, after circumcision, takes a name corresponding to some local event which occurred at the time when circumcision took place.

The following is a list (probably incomplete) of the *saro* of the Bakuria :—

1. Bamachari - - ?
2. Kitangosa - - Those who do not run away (*kung'osa*, to run away).
3. Kitira - - The Masai kitira *saro* fought with this *saro*. Though the Bakuria had not yet been circumcised they drove back the Masai and took their name to commemorate the incident.
4. Kisambasso - - Those who ran away (*kusambisso*, to run away).
5. Ngibabi - - The first generation to pierce the tops of the ears for the insertion of small sticks as ornaments.
6. Ngirabi - - Efficient. They cultivated much, and obtained many wives.
7. Māssé - - The Bakuria of Utimbaru repelled a raid by the Māssé *saro* of the Masai.
8. Kihocha - - Turn or drive back. This *saro* drove back, i.e., [re-captured, cattle raided by the Masai.
9. Rumori - - This *saro* took the name of the Barumori of Ngruimi, who are good warriors.
10. Nginaro - - The *saro* which routed Ngarinaro *saro* of the Masai.
11. Bota Misungu - - The wood of the *misungu* tree was used as firewood during an expedition against the Masai.
12. Monyi Nyisandiku - - Those who had boxes. Boxes were first introduced by the traders at this time.
13. Kamboni - - i.e., company. Companies of scouts passed through Bukuria during the war.
14. Kehar - - K.A.R. (King's African Rifles).

The Bakuria, prior to circumcision, practise the following custom :—

When eleven or twelve years old, children of both sexes collect and go into the bush to "make *kisassi*." One of the youths is chosen as chief, and each of the girls chooses as her companion one of the boys, to whom she gives an arm-ring or anklet in token of friendship. This choosing of a youth by a girl is common. When dancing the *Mbagete* the girl chooses her dancing partners, and when porters carry loads into the area of a different clan they frequently line up, and the girls present, in play, pick out the man whom they fancy as a husband.

*Kisassi* companions do not indulge in intercourse which is forbidden to both sexes before circumcision. This rule is seldom broken, for it is believed that were a girl to indulge in sexual intercourse before she was circumcised, or were she to receive an uncircumcised man after she was circumcised, she would become sterile.

Should a girl refuse to choose a boy she is cursed by the chief, who imposes some penance, such as sleeping upon the bare ground or abstaining from certain foods. She is, moreover, sent to Coventry by her companions until she repents and consents to choose her *kisassi* companion. As an alternative the band of children may raid the fowl house and kill all the poultry of the father of a girl who refuses to obey the chief.

\* Vide Harvard, "Varia Africana," Vol. III, p. 167.

The *kisassi* is a mutual help society, and when a girl is given a heavy task by her father she takes a *kirangeta* (a small gourd filled with tobacco and water, which is poured through the narrow neck into the nostril) to the chief, who orders out the whole band to do the work. Anyone who refuses to obey the order is fined a goat.

The members of the *kisassi* are naturally circumcised at the same time, as they are roughly of the same age, and after the ceremony has taken place they become the *saro*, or age-grade.

Whilst performing the circumcision ritual a youth may not shave his head, and before doing so he must have connection with a woman. His choice naturally falls on his *kisassi* companion, who thus becomes his concubine, and usually, later on, his wife.

The *saro* helps its members as did the *kisassi*, and punishes disobedience by the levying of fines. It also enforces the orders of the medicine-men and rain-makers. It is naturally popular with the elders, since it enables them to impose heavy tasks on their children, knowing that they will be completed without any trouble to themselves.

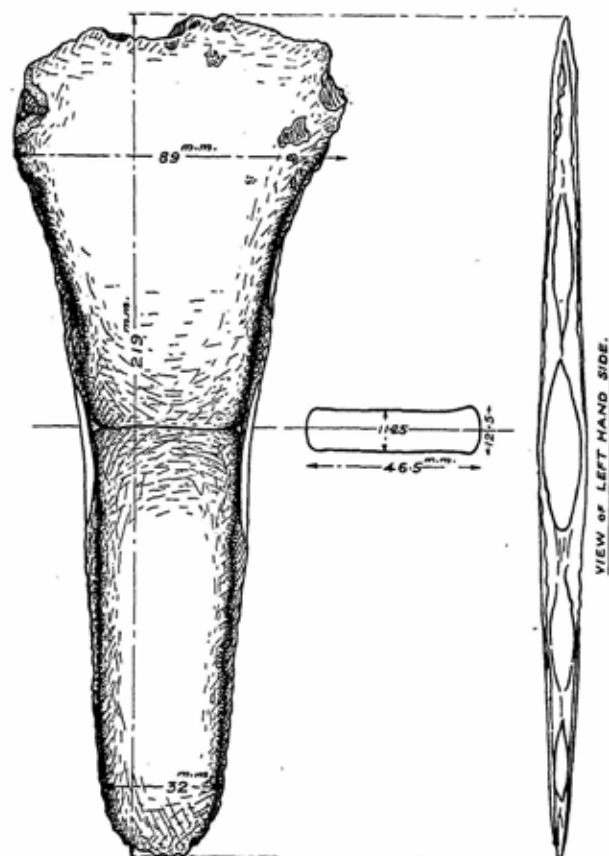
E. C. BAKER.

### Britain: Archæology.

**A Note on a Bronze Axe-Head found at Trefriw, Carnarvonshire.** By H. Higgins.

Higgins,

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*found at TREFRIW.*

The bronze axe-head here figured was found in the Crafnant stream, a tributary of the Conway river, in August of 1926.

A labouring man who was engaged in the work of felling trees near the Fairy Falls, Trefriw, while searching for a stone to use as a wedge for raising a tree branch picked up a piece of metal which upon examination was found to be an ancient bronze axe head.

It measured  $8\frac{1}{2}$  inches in length, the cutting edge had been worn away to such an extent as would indicate that the axe would probably have been 9 inches in length originally and the width at the widest part would have been about 4 inches.

It presents the appearance of having been hammered into its shape.

The bronze is of an excellent quality, but there has not been complete homogeneity in the smelting as spots of copper oxide are apparent in several places.

H. HIGGINS.

## REVIEWS.

## Racial Contact.

Pitt-Rivers.

*The Clash of Culture and the Contact of Races. An Anthropological and Psychological Study of the Laws of Racial Adaptability, with special reference to the Depopulation of the Pacific and the Government of Subject Races.* By George Henry Lane-Fox Pitt-Rivers. London: Routledge. 1927. pp. xiv + 312. Price 18s. net.

Capt. Pitt-Rivers's book may be considered as a detailed commentary on Lucretius's famous line *Tanta religio potuit suadere malorum*. His general thesis is that the fall in the population on the Pacific is due to the interference by the white man with native customs, and especially sexual and marriage customs, inspired by the missionaries, to whom polygamy and any form of sexual licence is a deadly sin. The author considers that excessive masculinity is a symptom of decreasing population and that "the most favourable breeding conditions are obtainable for the mother only under polygynous conditions." He contends that the administration under the influence of the missionaries has discouraged, and in some cases practically forbidden, polygamy and by limiting other sexual practices considered as normal by the natives but as "beastly customs of the heathen" by the dominant race, has upset the whole social fabric and has produced biological as well as sociological consequences. While the main thesis is limited to the Pacific, use has been made of the comparative material, especially the Navaho. As a final moral Capt. Pitt-Rivers practically suggests that the best condition for each race is to be found in its own beliefs, customs and ritual, and that for the white man to suppress native customs because he holds them to be beastly is to doom the native race to extinction.

The book is of great importance, as it is not merely academic but practical, and the author does not hesitate to criticise our methods of colonial administration where he thinks they are lacking and at the same time to suggest what he believes to be the remedy. To deal with the subject adequately he would naturally have to possess a greater biological knowledge than he does, but he makes good use of collected specialist work and appeals to the biologists for more data. It would have been an advantage if he had taken into consideration the clash of other cultures than white and black or brown. Two obvious examples occur to the mind: the Ainu, who are rapidly being exterminated owing,

presumably, to their contact with Japanese civilisation, and the Mongols, who also are apparently dwindling. In the former case it would seem as if economic causes, the deprivation of fishing and possibly hunting areas, and the consequent change of diet, are the most important factors for decrease. Among the Mongols, while the Moslems appear to be increasing the Buddhists are decreasing. Here certainly Capt. Pitt-Rivers's thesis seems to be borne out. The new religion, with the introduction of an enormous officially celibate class, has upset old sexual customs and in practice has made a large number of the women polyandrous instead of the ideal monandrous state. Capt. Pitt-Rivers limits his studies in America to the United States—he by inference uses America to mean only part of the continent—suggesting that among the North American Indian population the four most pure-blooded tribes for which comparative statistics of increase can be obtained are the Arapaho, the Navaho, the Laguna and the Pima, thus leaving out of count the Canadian statistics, among which most useful information can be obtained, especially valuable in relation to the States because of the different method of treatment of the Indians and also because many have been less long in contact with civilisation. Indeed, in Canada some are still "wild," but for them, of course, little data are available.

It is to be regretted that no skilled proof-reader was employed, as this most valuable book is, unfortunately, a "basket-full of printer's errors." One error—that on p. 115. l. 10—is, perhaps, safer in such a work than it might be in other contexts, for the corrigendum should be "for male read female"!

L. H. D. B.

Roumania:  
Calendar—Customs.

Vulpesco.

*Les coutumes roumaines périodiques, études descriptives et comparées, précédées d'une Préface par A. van Gennep, et suivies d'une Bibliographie générale de Folklore roumain.* (12 planches et nombreuses illustrations dans le texte). Paris: Michel Vulpesco. 1927. Pp. ii + 304. Price 30 francs net.

M. Vulpesco, being a Roumanian and country-bred, speaks with exactness and authority when he describes customs of his native land which he has himself observed. Being also a good musician, he adds to the value of his work by giving the music as well as the words of numerous

folk-songs and, in addition, a number of dance tunes; although it is hard to see why the song on p. 14 is given only in the unfamiliar Greek notation, and one may reasonably ask whether the European scale always represents precisely the true pitch and intervals. Moreover, the list of Roumanian works on folklore is welcome, for there are few guides in Western European tongues to that part of anthropology. The above features give the work its value, and its only value; the attempts at comparison with other Slavonic customs are scrappy, and the would-be comparisons with Roman ritual, of which M. Vulpesco knows nothing at all, and on which he has not even consulted respectable second-hand authorities,\* are so much waste paper.

However, the reader can remedy this defect very easily by judicious skipping. M. Vulpesco gives us, first, a brief characterisation of the Roumanian peasant; then, in order, a sketch of the countryside in winter, with a few notes on wolf-beliefs (the Master of Wolves is regularly either S. Peter or S. Andrew); a description of the customs of Christmas Eve; the *Colindelle* (Kalendae—New Year's celebrations, but shifted to Christmas), with some interesting carols; a disguising-rite, the *Brezala*, carried out on Christmas Day; the miracle-play, *Vicleimul* (Bethlehem) or *Irozi* (Herods), with its accompanying puppet-show (text in full, in a French translation); a few words on New Year divination and magic; the rite of *plugușorul* the ceremonial pretence of ploughing and sowing, which obtains in several Slavonic countries; the Gypsy celebrations of the same period; the *sorcova*, a *Lebensrute* used by children; then, after some rites rather ecclesiastical than popular in origin, *șezătoarea*, a sort of working-party to help girls get ready their wedding-chests of finery (a similar party, to help a priest or a needy neighbour with his farm-work, is called a *claca*, p. 255); the dog-whipping day, *Jujăul* or *Tabarca*, at the beginning of Lent; the *cucii*, or cuckoos (young men fantastically dressed, who indulge in all manner of horseplay) at the same time; *Joi Mari*, the day of the dead (Maundy Thursday) and the very interesting ritual of the dead in general; the rain-charm of late spring, or of seasons of drought, *paparuda* (much the same as the well-

known *dodola*, but it is odd that it is performed in one district by gypsy girls, in another by young men; never, apparently, by Roumanian girls); and the Adonis-like ritual of the *Scalcianul* or *Caloianul*. Then come a number of matters less connected with the calendar, as the various kinds of spirits, *Ursitorile*, *Rusaliele* and so forth; a good deal of magic, with the text of several charms. Finally, we have full and first-hand accounts of the strange ceremonial dances of the *Călușarii*, and of a peasant marriage (but not the betrothal customs), and some other matters connected therewith. The work ends with a description of dancing bears who can cure people by walking over them.

With all this to be learned from the book, it would be unfair to insist on its faults too much; it furnishes most useful material for students of popular European custom who have the necessary knowledge to make fruitful comparisons. M. Vulpesco would do well if, in a future edition, he got rid of all that is not actual description of things Roumanian, first-hand or from reliable unprinted sources, and at the same time tried to free his pages from the appalling mass of misprints which makes a knowledge of textual criticism highly desirable for him who reads them at present.

H. J. ROSE.

Pacific: Ethnology.

Brown.

*Peoples and Problems of the Pacific.*

By J. Macmillan Brown. 2 vols. T.

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Fisher Unwin. Price £2 10s.

To those who are interested in the Pacific, its peoples and problems, Professor Macmillan Brown's book will be something of a disappointment. He approaches his subject with preconceived ideas and in his exposition confuses fact with theory in such a way that it is hard to disentangle them. This is not rendered easier by the absence, in the majority of cases, of the names of his authorities. His theory would seem to be that, in early times, the Eastern Pacific Ocean was a vast continent inhabited by a "caucasian" type of people, speaking a language allied to Indo-European. Owing to movements of the earth's crust this continent sank, leaving only the archipelagoes of Polynesia. Many of the people thus deprived of their homes set out in canoes and, blown by the trade-winds, reached the islands to the west, where they mingled in varying degrees in the different groups with the "negroid" aborigines, affecting their physique, material culture and social organisation. He does not deny all influence from Indonesia, but he maintains that "Polynesia is the most fertile source of foreign influence on

\* His chief authority for Roman matters appears to be R. Cirilli, *Les prêtres dansants de Rome*. For the value of this work, it is sufficient to refer the reader to Wissowa's damning indictment in *Philol. Wochenschrift*, 1915, cols. 19-23. Scarcely a Latin word is printed correctly.

"Melanesia" (p. 3). To Polynesian intermixture he attributes father-right, artificial deformation of the head, *kava* drinking, and the wavy-haired, mesorrhine, mesognathous physical type wherever they occur in Melanesia. The arguments in defence of this theory are drawn partly from negative, partly from positive evidence. The latter is mainly physical and linguistic, but considerations of material culture and social organization are also introduced. The physical data are unsatisfactory, because the people are simply described in general terms as having either "negroid," or "caucasian," or "European" features. No statistics and no measurements are given, such as would indicate the extent to which the population of any island is of a mixed type. Neither is the linguistic evidence convincing. His demonstration that the English *room*, Malekulan *uma* and Polynesian *ruma* are derived from the same root, and that the English *hind* and Polynesian *hine* are likewise of common origin, are sufficiently indicative of his methods in philology. His negative evidence for an east to west movement of peoples may be summed up in three propositions: the Polynesians are of so markedly un-Melanesian a type that it is impossible that they should have passed through the "negroid" islands on their way to their present homes; they lack all knowledge of pottery and are ignorant of trading and the use of currency, which they must have learnt had they come from the west; and it is inconceivable that a people physically so well developed and socially so highly organised should ever have migrated to the small islands of Polynesia. No one will deny the affinities of the natives of Sikaiana, Tikopia and Uvea with the Polynesians, nor the fact that, in many islands, as in the southern New Hebrides, contact and admixture of the two races have taken place, but Professor Macmillan Brown's deductions from the facts at his disposal seem rash in the extreme. Moreover, nowhere does he examine or discuss critically other theories of the movements of peoples in the Pacific.

The author's deep conviction that his arguments are irrefutable is to some extent due to his imperfect knowledge of the facts, his failure at times to appreciate their significance, his tendency to underestimate the importance of those which are not accommodating to his theory, and to confuse the issue by using terms without defining them. He dismisses too lightly the fact that *kava* is drunk in New Guinea, and he ignores the fact that people having wavy and even straight hair are found in Torres Straits. We are told that Malaita and "its colonies" are the only parts of

the Solomon Islands where mother-right is not found (the position of these "colonies" is not stated); that only in Malaita and Bougainville is the typical Solomon Island shield absent (he forgets San Cristoval); and that the Melanesians have made no advance in the art of war (he is ignorant of the elaborate organisations of Buin and the carefully regulated methods of fighting found in New Britain and parts of the New Hebrides). Even facts of a less specialised nature are sometimes wrong. He gives the death of Commodore Goodenough as evidence of the use of poisoned arrows in the Solomons; but it is recorded that Goodenough died of tetanus resulting from a wound received in Santa Cruz.

His knowledge of the social organisation of primitive peoples is somewhat elementary. Apart from such statements as that there are no "kins" in Malaita and references to a "caste" system in Malekula and Santo, we find such passages as the following: "Every village has its own language. . . . This is the usual result of matrimonial exogamy and division into kins and clans. Property and power can never accumulate sufficiently in any family to allow of conquest or amalgamation of villages or territories. . . . Wherever this multiplicity of languages prevails . . . it is a sure sign of kin division and mother-right"; and he proceeds to deduce that owing to the multiplicity of languages in New Caledonia, father-right must be of recent introduction there, since it has not had "its full effect in destroying the network of barriers that divided every village from every other." Statements of similar logical force are to be found on many pages. Not by these methods will the problems of the Pacific be solved.

CAMILLA H. WEDGWOOD.

Kamohatka: Ethnography. Bergman. *Through Kamchatka by Dog-sled and Skis*. By Stan Bergman. London: Seeley, Service & Co., Ltd. 1927. Pp. 284. 23 illus. and 2 maps. 21s. net.

This is the story of the adventures of the author and his wife in a quest for ethnographical specimens for the Swedish National Museum. In the course of their journeys they traversed a long stretch of the country northwards of Petropavlovsk, making the acquaintance of the reindeer-keeping Lamuts and Koryaks, of Kamchadals, of Russians, Japanese, Chinese, and of human flotsam and jetsam from various quarters of the world. The scientific results of the expedition are in course of publication elsewhere, and this popular account of the incidents of travel in Kam-

chatka only enables us to congratulate the author and his wife on the courage and enterprise which carried them through so much danger and hardship. The climate and topographical conditions left much to be desired, and the human inhabitants—in some respects at least—left more. On the whole, it is a depressing picture we get, in spite of the author's cheerfulness. There is some matter of ethnographical interest in the last half of the book, but only in the form of traveller's observations. The translation is competent. H. S. H.

Egypt: Religion. Weynants-Ronday.

*Les Statues Vivantes.* By Madame Weynants-Ronday. Preface by Jean Capart. Brussels. Edition de la Fondation Egyptologique Reine Elisabeth. 1926. **157**

Madame Weynants-Ronday has attempted an extraordinarily difficult subject; and though it cannot be considered the last word on the *ka*-statues, it has the merit of having cleared the ground considerably. She begins by showing that in many countries a portrait of a person is considered to be the equivalent of the person, so also are the shadow or the name; and she quotes largely from texts of all periods of Egyptian religious literature to prove that the Egyptians also believed this. She makes, however, two errors: first, she uses the word "soul" without giving any definition; and secondly, she is not strong in chronological method, though she clearly realises the importance of it. That the *ka* is one of the multiple entities which the ancient Egyptian believed himself to possess, is unquestioned, but that that belief lasted unchanged throughout the long period of history, is open to question. She discusses with great care the opinions of many Egyptologists as to the nature of the *ka*, noting particularly the meaning of the word in other connotations, as "food," and that the word may also mean "action" or "energy." She has, however, omitted the interesting suggestion, made by Professor Petrie, that the *ka* is the ancestral spirit incarnating in a member of its own clan. This explanation would account for the explanation that it is a "totem"; and semi-divine, if not wholly so. The incarnation of an ancestral spirit is well-known in many parts of Africa and also in modern Egypt. Madam Weynants-Ronday has not mentioned that primitive snake-god, *Nehebi-ka*, "He who yokes the *ka*." On the whole this is a book worth reading, and it is to be hoped that Madame Weynants-Ronday will give us another volume in which she will go deeper into the subject

and give us the result of her own original research work. M. A. MURRAY.

Australia: Ethnography. Dahl. **158**

*In Savage Australia.* By Knut Dahl. London: Philip Allan & Co., Ltd. 1926. 9 x 5½, pp. xii + 326. Illustrations and a map. 21s. net.

This is a book with a wide range of interest, and although the main topics are those relating to the collection of zoological specimens, there are many valuable records of observations made on the native tribes of two areas—Arnhem Land and Dampier Land—of north-west Australia. It is over thirty years since the author set out on his expedition, but soon after his return, in 1896, he published in Norwegian an account of his travels and experiences; the present book is his own translation, with the collaboration of two English "supervisors," who proclaim the lightness of their task. The result is excellent, the author's English style being terse and vivid. Very rarely are there oversights to be detected, such as the description of the spiny anteater as the "anteater (porcupine)," and the use of the expression "Magdalen" period.

Whilst Professor Knut Dahl made no attempt to explore the depths of the black man's mind, he came into contact with the aborigines under various conditions, and he gives us interesting accounts of their arts and crafts and of their habits. If at times his gun seems to go off too often, it was not the aborigines who fell victims to his skill, but the mammals, birds, and reptiles which he was commissioned to collect for the Museum of the Norwegian University. In this quest he was eminently successful, and amongst his spoils were many species new to science. No young man could have had a better chance, or have pursued it with greater zest, and we are grateful to the author, now not so young, for the issue of this English edition of his book. H. S. H.

Palestine. Pedersen.

*Israel: Its Life and Culture.* By Johs. Pedersen, Professor of Semitic Philology in the University of Copenhagen. London: Humphrey Milford, 1926. Pp. x + 578. Price 15s. **159**

This volume, a translation of the original Danish edition, contains a solidly written but exceedingly interesting account of the social and spiritual framework of life in Ancient Israel. Professor Pedersen's main source of information is, of course, the Old Testament, regarded from the standpoint of the "higher criticism." But he has also made full use both of the numerous monographs and commentaries which have been written around it, and of the important data brought to

light by the various archaeological investigations carried on in Palestine during the last half century. His work is consequently in full accordance with the trend of recent research, and provides a very illuminating survey of certain aspects of ancient Hebrew culture.

The opening pages deal with Canaan before the immigration of the Israelites, and contain a short sketch of the archaeology and geography of the country and its cultural relations with neighbouring regions. Then follows a very brief discussion of the ethnology and history of Ancient Israel, in which the emergence of the Hebrew state is traced from its nomadic antecedents through the formation and expansion of the city. The succeeding chapters deal with the community, its rulers and different social classes, the family and its formation, marriage, kinship and the levirate, property and inheritance. To social anthropologists these chapters will prove of great interest, and one regrets that the author did not devote more detail to them. The discussion of the family and kinship, especially, is conducted with great learning, but we would gladly have welcomed further elaboration of certain points, such as the influence of the mother's family in social life, to which the author does not seem to attach sufficient importance.

By far the greater portion of the book is devoted to an elaborate treatment of the moral ideas of the Old Testament. The author discusses in detail and with a great wealth of illustrative material the soul, its powers and capacity, as illustrated by mental processes and linguistic conventions; the "blessing" and all its diverse implications; honour and shame; the name and its importance; peace, covenants and salvation; righteousness and truth, the maintenance of justice, the forms of sin and the curse, and, finally, the conceptions of life and death. We have read few accounts of Hebrew civilisation in Palestine in which the ethical and moral aspects of Hebrew life are dealt with so fully and lucidly. Professor Pedersen's great learning and brilliance of exposition combine to make his treatment of the subject of permanent value to the student. The chapter on the soul is especially illuminating and exhaustive.

It is to be regretted, however, that Professor Pedersen should not have found it practicable in this book to deal also with the ritual life of the Hebrews. The connection between religion and morality is so close that it hardly seems advisable to omit all consideration of the former while elaborating on the latter. In his preface the author

expresses the hope that he will soon be able to "continue with a work on the Israelitic cult and conception of the Holy." It would add considerably to the value of his treatise as a work of reference if he could fulfil his promise in the same masterly manner that characterises this volume.

I. S. SHAPER.

Anthropology: Physical. Elliot Smith.

*The Evolution of Man.* By G. Elliot Smith, M.D., F.R.S. Second Edition. Humphrey Milford. Oxford University Press; London. 8vo. Pp. vii + 195. Price 12s. 6d. net.

In this the author has knit together more closely the separate essays which were presented in the first edition, thus rendering the book more useful to students, while the increased number and excellent draughtsmanship of the illustrations have added to the convenience of the general reader. The great feature in human evolution has been the development of the brain and particularly of the neo-pallium. The story is traced both on the zoological and the palaeontological side, details being given as to the fitting of the portions of ancient crania so as to secure accurate information on the details of the cerebral markings. The Piltdown and Taungs skulls receive special attention. The whole summarises the advances in knowledge since 1923. In connection with the subject of the relation of cranial asymmetry to right-handedness it is shown that the person whose fossilised skull was discovered during the excavation of Lloyds Bank in Leadenhall Street must have been left-handed. This leads up to a discussion on the visual factors concerned in left-handedness and their relation to education. The ease with which war cripples who had lost their right hands acquired the art of mirror writing with the left hand compared with the difficulty of learning to write forward in the usual manner is discussed, as also the difficulties in teaching ordinary right-handed writing to some children. Stuttering sometimes follows in such children; the question whether it would be wiser to allow such children to continue to write left-handed is of importance. It may well be simpler from the standpoint of anatomical mechanisms, but as it leads ultimately to the discovery by the subject that he differs from his fellows, and so child nature, being what it is, to a certain amount of teasing, it may be the current practice of endeavouring to effect the change is justified.

F. C. S.

Anthropology. Social.

Frazer.

*Man, God and Immortality: Thoughts on Human Progress.* By Sir James George Frazer, O.M., F.R.S., F.B.A. London: Macmillan & Co. Pp. xvi + 437. Price 15s. net.

A brief note will serve to call the attention of anthropologists to this book of extracts from the writings of Sir James Frazer, for to them it needs no commendation. The selection has been made by M. Pierre Sayn; but it has been supervised by the author himself, and has received the final touch of his hand. It contains the more significant general conclusions and characteristic passages from his works and carries on on broader lines the summarising of the author's work, of which a beginning was welcomed in the abridged editions of "The Golden Bough" and "The Folklore in the Old Testament." Apart from its intrinsic value as a piece of literature by a master of English, it serves as an admirable and valuable guide to Sir James Frazer's monumental contribution to the study of social anthropology and primitive religion.

E. N. F.

New Caledonia: Art.

Luquet.

*L'Art Néo-Calédonien.* Par G.-H. Luquet. Travaux et Mémoires de l'Institut d'Ethnologie. II. Paris, 1926. Pp. 159. 241 text figures and 20 plates.

This interesting volume proves that the art of New Caledonia possesses more attractive features than might have been suspected from a consideration of the relevant objects in our museums. Not that the author has revealed new beauties or explained away grotesques, but rather that by text and illustration he has helped us to an understanding of decorative efforts which seem chaotic. The book is based on material collected by Marius Archambault, an almost life-long resident on the island, and M. Luquet had special qualifications for the task of exposition, both from his studies in psychology, and from his investigations of drawings made

by children. The main sources of the artistic products under consideration are the bamboo batons, insignia of rank, or at least of men of good repute, and the rock-carvings which are to be found distributed from end to end of the island. The carvings on the bamboos are chiefly line-engravings, blackened with soot, or merely grimy, and they include human and animal figures, trees, European vessels and weapons, and other objects in great variety, sometimes isolated, sometimes grouped pictorially. Geometrical designs are not so frequently present. To a large extent the engravings are comments on life, and their imperfections are excused by their obvious sincerity. The petroglyphs, on the other hand, are predominantly geometrical, though the author, unlike M. Archambault, regards them as the work of New Caledonians and not of intruding foreigners. Amongst the various motives, the cross in several modifications is very characteristic, whilst concentric circles and spirals are not uncommon. Most of the geometrical designs, both on the bamboos and on the rocks, are traced by the author to degeneration of representations of the human figure, the human face, and disassociated portions of the figure and the face. His identifications are made with great ingenuity, and though we may accept his main thesis without demur, there are instances in which he takes us further, in points of detail, than it seems wise to go. He is not incautious, however, and he has the weight of a careful study to give his opinions force and value. His treatment of the psychology of the New Caledonian artist deserves detailed discussion, but it must be left to the reader to investigate for himself, M. Luquet's views on "homonymie graphique," "synonymie graphique," and "le calembour graphique" (p. 109).

The book is lavishly illustrated and well printed. Both the author and the Institut d'Ethnologie may be congratulated on the production of a volume which fulfils its purpose so successfully.

H. S. HARRISON.

## PROCEEDINGS OF SOCIETIES.

Congress: Institut International.

*The Amsterdam Congress of the Institut International d'Anthropologie.* 163

The third congress organised by the Institut International d'Anthropologie was held in Amsterdam between September 20th and 26th, after which many of the members went for a four days' tour through the north and east of Holland.

A number of British anthropologists attended the congress, some of them representing the Institute or some part of the British Empire. The President represented the British Government as well as the Institute, and there were also present Professors Fleure (the Institute), Ruggles Gates and Elliot Smith (Australia), Dr. Hutton (India), Messrs. Garfitt, Kendrick, Newlands (Gold Coast), Palmer (Nigeria),

Sayce and Turville-Petre (Palestine), as well as Miss Garrod and Miss Tildesley.

The city of Amsterdam invited the members of the Congress to an afternoon reception, to a concert at the Concertgebouw, and on the last day of the Congress to a banquet, at which H.R.H. the Prince Consort presided. During the tour the members were hospitably entertained by the Municipality and the Provincial Government of Groningue, the Municipality of Assen and the Governor of Drenthe, the Municipality of Rheden, the Baron and Baroness van Pallandt at the Castle of Keppel, and by the Municipality of Arnhem.

The International Federation of Eugenic Organisations, under the presidency of MAJOR LEONARD DARWIN, was meeting in Amsterdam at the same time, and a joint session was held on Thursday, 22nd September, to discuss the question of race mixture.

It is difficult to summarise the papers read at the Congress, but it may be said that few of them were of outstanding importance. The most notable was a communication from Dr. L. HIRSZFELD, of Warsaw, on the blood-groups in anthropology. MISS GARROD read a short paper on the new Gibraltar skull, and Dr. H. FRANKFORT one on "Some archaeological material from ancient Near Eastern chronology." The scientific event of most importance to the British visitors was the award of the *Prix Hollandais*, of the value of 6,500 frs., to Miss Garrod for her discoveries at Gibraltar.

After some discussion it was decided to invite the old Congrès International d'Anthropologie et d'Archéologie préhistorique to hold their next congress at the same place and date as that organised by the Institut, the Congress to be under the direction of a joint committee.

## CORRESPONDENCE.

Sociology :

Hocart.

### The Dual Organization.

To the Editor of MAN.

SIR,—Mr. J. H. Hutton has in the text of his article on the Nagas of Assam in MAN, 1927, 92, put forward some suggestions as to the origin of the dual organization, but has timidly relegated to a footnote what I believe will prove to be a corner-stone of this institution, namely, the idea of interaction between sky and earth.

Most important in this connection is his statement that the founder of a new Sema village must have a companion, "as it were *man and wife*."

Fijians lay as much stress as the Nagas on the rule that all things go in pairs, "otherwise sharks will eat one." It is laid down that a chief must always have a second. In one place the second, or war chief, is definitely stated to be the "Edge," a fact I had previously inferred. Now the connubium (*veitambani*) constantly takes the form of a bond between nobles, or seamen, and "edge" of landmen. In one place at least the nobles are female, the edge is male, and everywhere the former are gentle, the latter rough.

In India the gods of the two rival castes of Kshatriya or nobles and Brahmans or priests are frequently paired to make a double god. In the combination Mitra-Varuna it is stated that Varuna, who is noble, is female, and Mitra, the priest, is male.\* Note that Brahmans are called earth-gods (*bhumideva*).

\* Cp. also Indra-Agni in *Ceylon Journal of Science*, G., vol. I, p. 36.

Further research between India and Fiji may lead us to the following scheme :

Noble-celestial-maritime-female

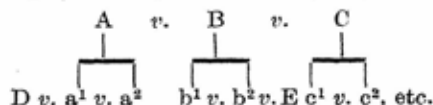
v.

Priestly-terrestrial-land-male.†

It may be objected that the sky should be male, but in the Egyptian legend of the separation of heaven and earth the sky is a woman. I admit this is most annoying : it would be so much simpler if it were as in the Polynesian version ; but we have to face the facts, and in the end facts really turn out to be simplest.

More information is wanted about the relations of intermarrying tribes. When we shall have it we shall no doubt leave Mr. Perry a long way behind, but to him belongs the credit of seeing the problem, of collecting a mass of invaluable information, and of doing his best with mere scraps.

In the end we may have to abandon the term "dual organization" and substitute "dichotomy" or "connubium." It is doubtful whether there was ever anything so simple as a set of tribes each divided into two. The Fijian state of affairs may be represented by the following diagram :—



One tribe may form a dual organization with three or four several tribes, and every unit tends to split into two which form a dual organization. Indian evidence is sug-

† Varuna and Odin, sky gods, are also sea gods.

gestive of the same.\* It is possible that from the very beginning sky people could split up into sky and earth, and the earth people also, and that two sky clans could intermarry and become sky and earth. In Fiji a tribe may be sea in relation to one and land in relation to another. The terms are purely relative and may always have been so.

Yours faithfully,

A. M. HOCART.

Africa, East: Archæology. Huntingford.

### Cairns in Kenya Colony.

To the Editor of MAN.

SIR,—Mr. C. B. G. Watson, in **165** MAN, 1927, 31, mentions stone cairns at Wajir and elsewhere in the N.F.P. of Kenya Colony, and says that nothing was found in those that were broken up. One would not expect to find anything above the ground level, and Mr. Watson does not say whether any investigations were made below the ground level. Mr. C. W. Hobley told me that the cairns in the N.F.P. were said to be the burial-places of the chiefs of the Maanthinle ("Medenli") which apparently is the Somali for "tall people." Cairns are found in other parts of Kenya Colony. Two districts in Nandi, called Lo'-l-meneñgai and 'N-dupeneti (the former meaning "the-of-the-corpses"), contain many examples, which are said locally to be the graves of Uasin Gishu Māsae, who fought with 'L-Aikipyak Māsae. Hollis ("Masai," p. 305) thus describes the grave of a medicine-man: "A small hole is then dug resembling a trench, into which the body is laid and covered with stones."

\* *Ceylon Journ. Sc.*, G., I, 67ff.

"This is called a grave [*en-gurare*]. When ever anybody passes this spot he throws a stone on to the heap, and this is done for all time." The Nandi examples are conical erections, of 12 ft. or thereabouts in height. The Nandi call them *makuonik*, and in some have made rough seats at the top, where they sit and take their ease.

Yours faithfully,

G. W. B. HUNTINGFORD.

Britain: Agriculture.

Perry.

### Terraced Cultivation in Cornwall.

To the Editor of MAN.

SIR,—I was not aware until this summer that terraced cultivation exists **166** in Cornwall. I found by accident a fine series at Gurnard's Head, between St. Ives and St. Just. They went right down to the headland, and ran inland for about a third of a mile. Those nearest the coast had evidently long been out of cultivation, and were not provided with stone retaining walls. But those inland served as farm fields, and had stone retaining walls, but no stone enclosing wall. They were typical terraces. Another set exists at Chysauster, north of Penzance, and close to Castle am Dinas. I should be obliged if any readers of MAN could give me additional information about terraces in Cornwall. Their existence in this country, and in such close proximity, also, to megalithic remains, is extremely significant. For it suggests strongly that the builders of these remains made the terraces. I should very much like to be able to construct a map of Cornwall showing this distribution in detail. It would tell us much about the former occupation of the county.

Yours faithfully,

W. J. PERRY.

## ANTHROPOLOGICAL NOTES.

Duplicate Pamphlets, etc., for disposal in the Library of the Royal Anthropological Institute. **167**

The Institute has for disposal to Fellows a certain number of duplicate pamphlets and periodicals. By application to the Librarian Fellows desirous of purchasing these may obtain lists covering the subjects in which they are interested, as follows:—Physical Anthropology and Fossil Men, 100; South and Central America, 100; Australia and Oceania, 62; Africa, 35; Asia, 140; Western Europe, 200; Central and Eastern Europe, 120; other parts of Europe, 100; Material Culture, 20 items.

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American Museum of Natural History; The American Anthropologist; Proceedings of the American Philosophical Society; Publications of the Smithsonian Institute; Archæological Reports, Ontario; Journal of Egyptian Archæology; The American Antiquarian; The Australian Association for the Advancement of Science; Bulletins et Mémoires de la Société d'Anthropologie de Paris; Anthropologie, Prague; Anthropological Publications of the University of Pennsylvania; Proceedings of the Academy of Sciences, Amsterdam; Mitteilungen der Anthropologischen Gesellschaft in Wien; Memoirs of the Bernice Pauahi Bishop Museum, and others.





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4. The maintenance of a library, which contains sets of all the principal Anthropological Journals published in the United Kingdom or elsewhere, besides a large and valuable collection of books of reference, treatises and researches, an extensive collection of photographs and lantern slides, and much unpublished material for the use of students of Anthropology. Fellows residing in the country, as well as in London, can borrow books from the library.
5. The appointment of Committees to conduct special investigations, as occasion offers, in the various branches of Anthropology.
6. Co-operation with the British Association for the Advancement of Science, and with foreign scientific societies in anthropological investigations; co-operation with individuals and institutions in aid of explorations and in the establishment of local centres of anthropological study; and generally, the stimulation of individual and local efforts to further the objects of the Institute.

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